

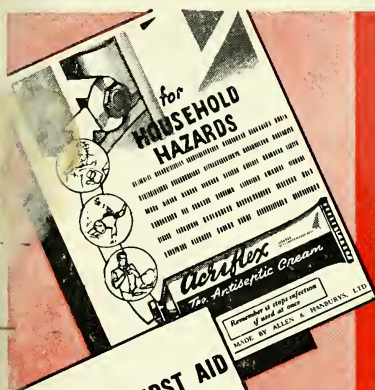
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MARCH 4, 1950



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These categories are under constant review, however, and may be added to from time to time in the light of current expert advice.

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The CHEMIST AND DRUGGIST



for RETAILER—WHOLESALE—MANUFACTURER

MARCH 4, 1950

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Volume CLIII

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NEWS OF THE WEEK

Veterinary Congress.—The National Veterinary Medical Association is holding its 1950 congress at Cardiff, September 3-8.

Exchange of Orange Insurance Cards.—Orange National Insurance cards should be exchanged between March 6 and March 11. Grey, blue and straw coloured cards are not yet due for exchange. Further details may be obtained from the local offices of the Ministry of National Insurance.

Registered Pharmacists' Union.—The following officers were unanimously elected at the annual meeting of the Registered Pharmacists Union on February 23:—*President*, Mr. G. H. Sheard, B.Sc., Ph.C.; *Vice-president*, Mr. W. C. S. Thomas, Ph.C.; *Secretary*, Mr. G. H. Armitage, Ph.C.; *Treasurer*, Mr. D. J. Gibson, D.Sc., M.P.S.

New Ministerial Appointments.—Among the new Ministerial appointments announced by the Prime Minister on February 28 are the following:—*Minister of Food*, Mr. Maurice Webb; *Minister of National Insurance*, Dr. Edith Summerskill.

Mr. Aneurin Bevan remains Minister of Health and Mr. Harold Wilson President of the Board of Trade.

Medal for Penicillin Pioneer.—At a dinner in Leeds on February 17, Sir Alexander Fleming received a gold medal provided under the terms of the will of Mr. Hoffman Wood (a Leeds architect who died in 1933) for "the most successful discovery for the relief of human pain and suffering."

T.S.A. Licences.—Licences under the Therapeutic Substances Act for dispensing penicillin and streptomycin injections have been granted as follows:—

BOLTON: Mr. John Vickers, 41 New Hall Lane.

HANLEY, STOKE-ON-TRENT: T. C. Cornwell, Ltd., 14 Piccadilly.

A licence for dispensing penicillin injections has been granted as follows:—

WELLINGTON, SALOP: Bates and Hunt, 24 New Street.

Election Successes.—Among candidates who were successful in the General Election on February 23 were Sir Peter Ben-
F

nett, O.B.E., J.P., Edgbaston; Mr. R. C. Fort, Clitheroe, Lancs; Mr. E. L. Granville, Suffolk; Dr. Charles Hill, Luton; Mr. Geoffrey A. N. Hirst, Shipley; Sir A. U. M. Hudson, Bart., Lewisham North; Sir J. S. Holmes, Harwich; Mr. H. N. Linstead, O.B.E., Ph.C., Putney; Brigadier-General A. R. W. Low, C.B.E., Blackpool North; Alderman S. H. Marshall, J.P., Sutton and Cheam; Mr. C. S. Taylor, Eastbourne; and Sir W. Wavell Wakefield, M.P.S., St. Marylebone. (See *C. & D.*, February 18, p. 212).

Unveiling of a War Memorial.—A war memorial to the men and women from Lever Brothers & Unilever, Ltd., and associated companies who gave their lives to the Allied cause, was unveiled at Unilever House, London, by Sir Herbert Davis, C.B.E. (joint vice-chairman, Lever Brothers & Unilever, Ltd.), on February 22. The vicar of St. Bride's, Fleet Street, conducted a service of dedication at which the congregation represented next-of-kin and all categories of employees at home and abroad. The memorial (picture, p. 271) consists of a wrought-iron table surmounted by a marble top on which rests a glazed silver-bronze case enclosing a Book of Remembrance containing 1,039 names of both men and women.

LOCAL NEWS

Review of Therapeutics.—At a meeting of the South Shields Pharmacists' Association on February 13, at which Mr. M. S. Pearson presided, Mr. A. McGuckin gave an address on "Progress in Therapeutics." He mentioned that the properties of at least three drugs (ephedra, santonin and chaulmoogra) in use today were known to the Chinese 2,000 years ago. Mr. R. Darke proposed a vote of thanks.

Jersey Branch Annual Meeting.—At the annual meeting of the Jersey Branch of the Pharmaceutical Society on February 15, the following officers were elected:—*Honorary Life President*, Senator P. Le Quesne; *Chairman*, Mr. E. C. L. Gould; *Vice-chairman*, Mr. H. Le Quesne; *Secretary*, Mr. P. A. Larbalestier, 2 Charing Cross, St. Helier; *Committee*, Messrs. D. Dodsley, E. A. Garrick, G. T. Hodgekiss, and F. E. Robins. Matters of local interest were discussed including the C.F. Scheme as applied locally.

Eastbourne Dinner and Dance.—The annual dinner and dance of the Eastbourne Branch of the Pharmaceutical

Society and the Eastbourne Pharmacists' Association was held recently. Mr. G. Checkley (chairman of the Branch) presiding. Mr. S. E. Allsop (Association president) proposed the toast "The Pharmaceutical Society," to which Mr. D. W. Hudson (member of the Society's Council) replied paying tribute to the high standard of pharmaceutical practice in Eastbourne. Among other speakers were the mayor of Eastbourne, Messrs. H. J. Seath, P. H. C. Earp (vice-president of the Association) and Dr. P. W. Mathew (chairman, Eastbourne division, British Medical Association).

Huddersfield Joint Meeting.—At the February meeting of the Huddersfield Chemists' Association and Branch of the Pharmaceutical Society, Miss M. A. Burrows reviewed pharmacy during her two and half years on the Society's Council. Those years, she said, had been most important to pharmacy, for they had seen the selling of Brunswick House, the buying of Birdgrove House, the introduction of the National Health Service, the Society's manpower inquiry, and the publication of the new British Pharmacopoeia and British Pharmaceutical Codex. Much had also been done in the international field both the Society and the Students' Association. The opening of Birdgrove House as a convalescent home was, she thought probably the most popular thing that the Society had ever done.

Members' Night at Beckenham.—A meeting of the West Kent and South-East Metropolitan Branches of the Pharmaceutical Society was held at Beckenham on February 6 so that members could ventilate their grouses and put forward hints. Several members complained about delays in payments of the final National Health Service accounts, pointing out that settlement was not yet to hand for January 1949. A member gave examples of manufacturers' troubles, saying that some orders received bore no name and address, that on others the writing made any interpretation "a matter of clairvoyance." He asked members to affix the correct descriptive letters after the name of a drug. The word "urgent" was frequently misused, he said, so many orders were marked "urgent" that it was impossible at times to treat them as such. A resolution was passed unanimously supporting the National Metropolitan Branch's request for revision of courses (as requested by the 1948 Branch Representatives' meeting) to be now implemented.

West Ham Association Dinner.—The annual dinner and dance of the West Ham and District Association of Pharmacists was held in London on February 23. An appeal to the attendance of 189 on behalf of the Society's Benevolent Fund realised £34 15s. Among the speakers were Mr. J. F. McNeal (vice-president of the Pharmaceutical Society), Mr. J. Hearle (chairman of the National Pharmaceutical Union) and Mr. Arthur Mortimer, O.B.E. (president, Rotary International in Britain and Ireland). The president of the Association (Mr. Stanley Robinson), recalled the founding of the Association forty-seven years ago, mentioning that two original members of the Association were present at the function. Other speakers included Mr. Owen C. Wombwell (vice-president of the Association), Mr. L. H. Moppett (chairman, East Metropolitan Branch of the Pharmaceutical Society), Dr. Malcolm Barker (chairman, Stratford Division, British Medical Association) and Dr. S. A. Miller. (Picture p. 271).

Laboratory Visits.—Among recent visitors to Glaxo Laboratories, Ltd., Greenford, Middlesex, were final-year students from the School of Pharmacy, University of London, and members of the chemical society of Chelsea Polytechnic. On both occasions the visitors met members of the staff of the research division and were shown some of the work in progress.—The holders of the five Evans veterinary studentships for 1949-50 (awarded by the Animal Health Trust) were guests recently of Evans Medical Supplies, Ltd., for a two-day visit to the company's laboratories and factories. The party also included the following staff from the Animal Health Trust: Dr. W. R. Wooldridge (scientific director), Dr. R. F. Gordon (director, poultry research station), and Mr. S. F. J. Hodgman (director, canine research station).—Pharmacists from the Hants, Dorset and South Wilts Branch of the Guild of Public Pharmacists were the guests of Boots Pure Drug Co., Ltd., Nottingham, on January 25 and 26, when they toured the research laboratories in Nottingham and the factory at Beeston.

Southampton Branch Dinner.—The Southampton Branch of the Pharmaceutical Society held a dinner and dance on February 8. The toast "The Society" was proposed by Mr. L. J. Collins, and Mr. D. W. Hudson (a member of Council) replied. He said that Southampton, because of its size, location and importance, had a

great responsibility to the country as a whole. Its health services must always be exemplary. Though pharmacists might not play a leading part, the high standard of pharmaceutical service they provided was an important contribution to efficiency. Proposing the toast to "The President," Mr. W. E. Bassil said that the election of Mr. W. M. Cox to that office for the second year showed what a good leader he had been. The toast to the "Visitors" was proposed by Mr. J. Swann and responded to by the mayor of Southampton. Members and guests sang "Happy Birthday" during the evening for Miss H. Gibb (pharmacist at the Borough hospital), and at midnight for Mr. K. F. Young (secretary of the Branch).

Bournemouth Dinner and Dance.—Among the 200 members and guests who attended the annual dinner and dance of the Bournemouth Pharmaceutical Association on February 9 were the president of the Pharmaceutical Society (Mr. H. Clement Shaw), Mrs. Shaw and their daughter; the mayor and mayoress and deputy-mayor of Bournemouth; the presidents of a number of medical organisations; and the clerk and chairman of the Bournemouth Executive Council. Mr. H. Ridehalgh (vice-chairman of the local Association) proposed "The County Borough of Bournemouth." The mayor, in his response, paid tribute to the pharmacist and his service to the community. The local chairman (Mr. John Jones), in proposing "The Pharmaceutical Society," welcomed the president and Mrs. Shaw. The president, in reply, outlined some recent trends in pharmaceutical politics, noting the closer *rapprochement* between the "two Squares," and spoke of the importance of the survey into man-power in pharmacy and the effect of the educational policy of the Society. Mr. G. E. Titman proposed "Our Guests," to which Alderman H. C. Brown (chairman, Bournemouth Executive Council) responded. It is anticipated that a substantial sum will be available for the Birdsgrove House fund from the proceeds.

Scottish Pricing Difficulties.—At the February meeting of the Edinburgh and South-eastern Scottish Branch of the Pharmaceutical Society Mr. W. A. Beattie (Clerk to the Drug Accounts Committee and superintendent of the Pricing Bureaux in Scotland) gave a talk on "Some Aspects of Pharmaceutical Service." The speaker outlined the difficulties that had been imposed on the machine by the large increase

in the numbers now making use of the National Health Service as compared with National Health Insurance, and indicated the problems involved in pricing the much wider range of medicaments now in use. Staffing difficulties were felt in England as well as in Scotland, and any replacement of staff necessitated a period of training of two years before experience was gained. Mr. Beattie explained the principles involved in pricing prescriptions, and indicated how practising pharmacists could facilitate the work of the pricing staffs by giving the fullest information on the prescription where some doubt might exist as to how to price. He emphasised the need for sending in the forms in the order requested, and drew attention to delays arising from presentation of unsigned or unstamped forms. He afterwards replied to a number of questions. The chairman (Mr. J. C. Somerville) moved a vote of thanks to the speaker.

South-west London Association. — A meeting of the South-west London Chemists' Association was held on February 3, the president (Mr. J. U. Warburton) in the chair, at which Mr. J. Wright, Ph.C. (assistant secretary, National Pharmaceutical Union), spoke on "Current Problems—Forensic and N.H.S." Mr. Wright referred to recent amendments to the National Health Service Act and Regulations. The shilling levy on prescriptions had for the present been shelved, he said, but the Amendment Act made provision for the collection of "certain charges." One of the new Regulations allowed doctors to prescribe in bulk for patients in certain schools and institutions, but it should be noted that only National Formulary preparations might be ordered on such prescriptions. It had been established that constituents of Formulary preparations (not themselves the subject of separate monographs) would not be allowed to be ordered "in bulk." Until the figures for the balance of payment for June 1949 were available, payment on account remained at 90 per cent. of the average of the individual contractor for January 1949. June figures would be used for interim payments thereafter and would be at 90 per cent. of the overall average (minus one penny for reduced container allowance) until the September figures were available. A suggestion, he said, had been made that doctors should be permitted to order, on a special form, such drugs and appliances as were required for surgery use and in emergency. Any such arrangement must

contain adequate safeguards as to type and quantity. A vote of thanks to the speaker was proposed by Mr. Tibbett and seconded by Mr. Williams.

IRISH NEWS

Irish Institute of Chemistry.—The Institute of Chemistry of Ireland was registered in Dublin on January 28 as a company limited by guarantee without share capital. Its objects are "to promote the advancement and knowledge of chemistry in all its branches."

Credit for a Donation.—Thanks for a donation to the Benevolent Fund of the Pharmaceutical Society of Ireland should have been accorded by the Council of the Society to the Limerick Pharmaceutical Dance Committee and not to the local Association as stated in a recent report of the Council's proceedings.

Belfast Chemists at Luncheon.—Mr. C. W. Cleeson (managing director, Aspro (Ireland), Ltd.), with Mr. N. McConnell (sales manager) and Mr. L. Raine (Northern Ireland representative), entertained a group of Belfast chemists to luncheon recently. Among those present were Messrs. J. Caldwell (president, Ulster Chemists' Association), C. Quinn (vice-president), W. H. Boyd and H. F. Moore (members of the Council of the Pharmaceutical Society of Northern Ireland).

Northern Ireland Dinner. — More than 200 persons attended a dinner and dance of the Pharmaceutical Society of Northern Ireland in Belfast on February 20. A large party represented the Pharmaceutical Society of Ireland, and there were other guests from all parts of Northern Ireland. They were received by Mr. P. R. W. Shinner (president of the Society), who was supported by Mr. H. W. Gamble (vice-president) and Mrs. Gamble. In a short speech after dinner, Mr. Shinner welcomed Mr. T. C. Scott (president, Pharmaceutical Society of Ireland), Mr. P. A. Brady (a past-president), Mr. T. C. Coleman (registrar) and Dr. J. C. Dowling (an examiner). Also present were Messrs. J. Caldwell (president, Ulster Chemists' Association), C. A. Quinn (vice-president, U.C.A.), and J. N. Patterson (inspector). The arrangements were in the hands of a social Council subcommittee consisting of Messrs. H. F. Moore (convener), H. W. Gamble, J. McGregor, W. H. Boyd (treasurer) and W. Gorman (secretary) Mrs. McGregor, Mrs. Cowzer, and Miss L. M. Forrest (Picture, p. 271).

TOPICAL REFLECTIONS

Lecture on Economics

The fact that Mr. J. Davidson Pratt's lecture on "The Economics of the Fine Chemical Industry" (p. 250) included statistics need not deter anyone from reading it. The lecturer made it clear that his vital industry has planned and is planning expansion on a bold scale. During the discussion that followed, a speaker expressed the view that the United States could always have an advantage over this country in research because of the larger number of scientific and technical workers available there. Mr. Pratt pointed out in reply that quality in research is at least as important as quantity, and that discoveries are therefore as likely to be made in our own country as in the U.S.A. I agree; and I should like to add a point not mentioned, apparently, by any speaker after the lecture. Though the choice of personnel to form a research team is wider on the other side of the Atlantic than on this side, the training of this kind of team takes time. When Lister came to King's College Hospital, London, from Edinburgh in 1877 to introduce his system of antiseptics to Metropolitan surgery, he brought with him two house surgeons, two juniors and some nurses, all well trained. With a staff of raw recruits to carry out his instructions, Lister's campaign against professional apathy would probably have been much prolonged. But his arrangements were so well co-ordinated that his triumph was not long delayed.

Painstaking Report

The report of the Joint Pricing Committee for England (pp. 242-43) is a dispassionate account of the difficulties that have met pricing bureaux since the National Health Service Act came into force. This report should be given careful attention, even by those owners of pharmacies who have been most harassed by delays in payment. When we read that "excellent premises in the London bureaux were lost owing to delay in obtaining approval from the Ministry of Health," we can understand at a keen sense of frustration must have been felt by those immediately affected. Differences in the times taken to complete pricing of prescriptions are, as might have been expected, explained by differences in staff and accommodation. It is pointed out that the training of new

members of a pricing staff reduces for a time the output of the bureau where they work, and that this factor is increased adversely by resignations among partially trained staff. Such difficulties "have a marked bearing on the problem of opening new bureaux." A drastic simplification of the present scale of dispensing fees is recommended. Every suggestion for speeding up the work of pricing is, we are assured, carefully examined. Finally, the Committee becomes "more convinced" that a return to full pricing should be made so soon as practicable. While it would be too optimistic to suggest that this report is a complete answer to the grievances of panel chemists, it does set forth candidly the position with regard to payment. To know the facts may be the first step towards improving the situation.

Keats as a Medical Student

In your review of a new life of John Keats (p. 241), due prominence is given to the fact that in early life he was apprenticed to a surgeon-apothecary. The change from the City of London, where he was born, to Edmonton, where his apprentice-master practised, was a more considerable event in his life than it would be in this age of motor buses. In 1921, the centenary year of his death, the poet's association with medicine and surgery was narrated by Sir George Newman, M.D., in a book entitled "John Keats: Apothecary and Poet." On breaking his contract of apprenticeship after serving for four years, Keats continued his studies at Guy's and St. Thomas's Hospitals, then on opposite sides of St. Thomas's Street in South London. At that time Sir Astley Cooper, a dominant figure in his profession, was the principal surgeon at Guy's. In July 1816 the young student passed "with credit" the examination for licentiate of the Society of Apothecaries of London; he was one of the first candidates examined under the Apothecaries Act of 1815. He has left it on record that often, when attending lectures at Guy's or St. Thomas's, his thoughts were elsewhere. To the end of his short life, however, he kept in view the possibility of returning to the medical profession, not as a general practitioner (a career which for some reason he seems to have disliked) but in the capacity of a ship's surgeon.

Xrayser

NEW COMPANIES

BOLLIN CHEMICALS, LTD. (P.C.).—Capital £1,000. To carry on the business of chemical consultants, analysts, etc. Edwin Marshall Meade and Betty Marshall Meade, directors. R.O.: 395 Corn Exchange Buildings, 27 Fennel Street, Manchester.

ELDERS DRUG STORE, LTD. (P.C.).—Capital £1,000. To acquire the business of a drug store now carried on by the trustees of the will of the late Gwendoline M. Elder at Spikes Lane, Hakin, Milford Haven. William G. Johnson and William H. Davies, directors.

V. R. & N. HUTCHINSON (CHEMISTS), LTD. (P.C.).—Capital £500. To acquire the business of pharmaceutical chemists and druggists carried on at Westcliff-on-Sea. Victor R. Hutchinson and Nesta Hutchinson, M.P.S., directors. R.O.: 66 The Ridgeway, Westcliff, Essex.

ROCHE PRODUCTS PENSION TRUST, LTD. (P.C.).—Capital £100. To undertake and discharge the duties of trustees of any pension funds, etc. The directors shall be appointed by Roche Products, Ltd. First directors are not named. R.O.: 40 Broadwater Road, Welwyn Garden City, Herts.

TYNE, BLYTH & WEAR SHIPPING CHEMISTS, LTD. (P.C.).—Capital £500. To carry on the business of chemists, druggists, etc. John Robson, M.P.S., Mabel W. Robson, and George Cattenach, directors. R.O.: 19 Frederick Street, South Shields.

DAVID REA, LTD. (P.C.).—Registered in Dublin. Capital £2,000. To acquire the business of a pharmaceutical chemist and veterinary consultant carried on by David Rea at Rosemary Street, Roscrea, co. Tipperary. First directors are not named.

GEORGE H. COOPER (CHEMIST), LTD. (P.C.).—Capital £500. To acquire the business of a pharmacist carried on at 121 St. George's Terrace, Newcastle-on-Tyne. George H. Cooper, M.P.S., and Cuthbert Coulson, M.P.S., directors. R.O.: 5 Saville Place, Newcastle-on-Tyne.

LONGLEY CHEMICALS, LTD. (P.C.).—Capital £2,000. To carry on the business of manufacturers of and dealers in chemicals, drugs, etc. Charles A. Longley, Percy A. Blundell Ashmead-Bartlett, Patrick G. N. Ommanney, directors. Solicitors: Yarde & Loader, 2 Gray's Inn Place, London, W.C.1.

COMPANY NEWS

HORLICKS, LTD.—Interim dividend is recommended of $13\frac{1}{2}$ per cent. (the same).

SPA BRUSHES, LTD.—An interim ordinary dividend is recommended of 10 per cent. (the same).

ILFORD, LTD.—Aggregate net profit of the parent company for the year to October 31, 1949, amounted to £314,388 against £304,710. Ordinary dividend is maintained at 25 per cent. on larger capital. The sum of £150,000 (£100,000) is transferred to general reserve; to contingencies reserve, nil (£25,000); £121,391 (£121,106) is carried forward. Messrs. B. L. Drake and W. E. H. Metcalfe retire from the board by rotation. Mr. Drake, who is over seventy, is not offering himself for re-election. To fill the vacancies on the board, directors are recommending the election of Sir Laurence Merriam (deputy chairman, British Xylonite Co., Ltd., and managing director of B. X. Plastics, Ltd.) and the re-election of Mr. Metcalfe.

Voluntary Liquidations

LOUIS PHILLIPPE, LTD., and KISSPROOF LTD., Braydon Road, London, N.16. Liquidator: Arthur Gordon Cecil Head, 7 Manor Drive, London, N.14.

ANADIN, LTD., BISODOL, LTD., and PEROX, LTD., 12 Chenies Street, London W.C.1. Liquidator: Arthur Gordon Cecil Head, 7 Manor Drive, London, N.14.

Removals from Companies Register

(From the London Gazette, February 17)

The following companies are to be struck off the Register and dissolved at the expiration of three months from the above date:—**CHOCASPRIN, LTD.; HERBAL PRODUCTS, LTD.; HOSPITAL EQUIPMENT, LTD. GREAT BARR PHARMACY, LTD.**

BUSINESS CHANGES

COLGATE PALMOLIVE-PEET, LTD., are to sell the soap and perfume products of James Crean & Son (1936), Dublin.

BARCLAY & SONS, LTD., have appointed Mr. A. Hotton their representative in Brighton and East Sussex.

BOOTS, LTD., have acquired pharmacie at 165 Fortress Road, London, N.W.5, and at 15 Merthyr Road, Whitchurch, Cardiff.

K. A. THIEL, LTD., 2 York Villas Brighton have appointed Mr. George H. Jordan, 27 Aldrington Avenue, Hove, Sussex, to their representative staff.

PERSONALITIES

SIR LAURENCE MERRIAM (see also p. 266) has relinquished his special appointment as Examiner of Controls, the Board of Trade, the examination being now completed.

MR. A. H. ROBERTSON, M.P.S., Barton Road, Lancaster, has been elected an alderman of Lancaster. He has been a member of the city council since 1934. and was mayor, 1942-43.

MRS. ANNE WRIGHT, M.P.S., who has been re-elected president of the Sheffield

Branch of the National Association of Women Pharmacists, qualified in 1945 after studying at Bradford Technical College. Since then she has worked in turn with Boots, Ltd. (with whom she was apprenticed), in private pharmacy, and as manager of a pharmacy of the Sheffield & Eccleshall



Co-operative Society, Ltd. During her apprenticeship she was secretary of the Sheffield Students' Association, and in 1943 was a Stiles Trust prizewinner. After qualifying, Mrs. Wright served as local secretary of the N.A.W.P., and was elected branch president in 1949. Her husband, Mr. Gerald C. Wright, is also a pharmacist, and they have a seven-weeks-old son.

MR. W. G. BLENKINSOP (managing director, Ward Blenkinsop & Co., Ltd., 6 Henrietta Place, London, W.1), left London for South Africa on March 3. He is to tour the Union for some months to study market conditions.

MR. IAN FERGUSON (chairman and managing director of Evans Medical Supplies, Ltd.) has been elected to the Grand Council of the Federation of British Industries for the period 1950-53. He was co-opted to the council in May 1949.

DR. W. H. GARRETT, M.B.E. (a director of Monsanto Chemicals, Ltd.), was presented with the University of Liverpool Chemical Society medal for 1950 at a ceremony at the University recently. After presentation he addressed the Society on "Flexibility in University-Industry Relations."

DEATHS

ANTHONY.—Recently, Mr. Henry Owen Anthony, M.P.S., 18 Margaret Street, Abercynon, Glam. Mr. Anthony qualified in 1910.

BOSTOCK.—On February 25, Mr. John Bostock, M.P.S., 84 High Street, Cowes, Isle of Wight, aged eighty. Mr. Bostock qualified in 1894 after an apprenticeship with L. Rowland & Co., Ltd., Wrexham. His business at Cowes was established in 1845 and he had carried it on since 1900. He leaves a widow and a pharmacist son, who has his own pharmacy at Charminster Road, Winton, Bournemouth.

PULVERTAFT.—On January 27, Miss Mary Pulvertaft, 6 Goldsmith House, Goldsmith Avenue, Acton, London, W.3. Miss Pulvertaft qualified in 1929.

ROBINSON.—In hospital, suddenly, on February 19, Mr. George Robinson, M.P.S., 124 High Street, Colchester, Essex, aged fifty-one.

ROOM.—On February 3, Mr. Frederick Rupert Room, M.P.S., 12 Grove Lane, Kingston-on-Thames. Mr. Room qualified in 1905.

SANDERS.—On February 6, Mr. Archibald Sanders, M.P.S., whose address in the register was 26 Rycroft Road, Stretford, Manchester. Mr. Sanders qualified in 1923.

WALDON.—On February 10, Mrs. Emily L. Waldon, College Road, Maybury, Woking, Surrey, widow of the late Mr. John Waldon, M.P.S., Woking.

WYNNE.—At Urmston, Manchester, on February 16, Professor William Palmer Wynne, D.Sc., F.R.S., F.R.I.C., Emeritus Professor of Chemistry, University of Sheffield. Professor Wynne served terms as honorary secretary, vice-president and president of the Chemical Society.

WILLS

MR. D. M. CARNEGIE, The Gables, Blackheath Park, London, S.E.3, formerly of Carnegie Bros., Ltd., left £59,240 (£59,065 net).

MR. L. N. CORDEN, retired pharmacist, 89 Eaton Avenue, Bletchley, Bucks, formerly of Pulborough, Sussex, left £8,065 (£7,946 net).

MR. W. E. CROPPER, M.P.S., 590 High Lane, Tunstall, and Queen Street, Burslem, Stoke-on-Trent, formerly of 29 High Street, Scunthorpe, Lincs, left £6,898 (£6,238 net).

TRADE NOTES

Bonus Parcel.—The International Chemical Co., Ltd., Chenies Street, London, W.C.1, invite retailers to make Pineate cough syrup the centre of a £10 bonus parcel during the present month.

Balling Gun.—The Phenovis multidose balling gun for the administration to sheep of Phenovis brand phenothiazine tablets is manufactured by Imperial Chemical (Pharmaceuticals), Ltd., Wilmslow, Manchester.

Sunglasses in Seventy-five Styles.—Alfred Franks & Bartlett Co., Ltd., Audrey House, Ely Place, London, E.C.1, invite inquiries concerning their 1950 range of Bartlett sunglasses, comprising seventy-five varieties.

Desk-model Adding Machine.—Exactus, Ltd. (Dept. ETM/CD/1), 1A Creed Lane, St. Paul's London, E.C.4, are the manufacturers of a compact, desk model adding and subtracting machine, which handles totals up to £999 999 19s. 11³/₄d.

Display Discount.—From March 1 to September 30 an additional discount of 8¹/₂ per cent. is being allowed on Keating's powder in return for a fourteen days' window or counter display. Orders should be placed with Eucryl, Ltd., Southampton.

Bonus Terms Modified.—Pharmax, Ltd., Organ Works, Old Hill, Chislehurst, Kent, notify the substitution from April 1, of a bonus of 5 per cent. on orders of six dozen or over of either Diuromil or Ralgex in place of the present offer.

Feeding of Children.—The Ministry of Health booklet, "Feeding the One-to-Fives," has been rewritten and illustrated, and is now on sale. The booklet is designed principally to help with feeding of groups of pre-school children in nurseries, etc., but may also prove useful to parents.

In Easier Supply.—H. W. Carter & Co., Ltd., Coleford, Glos. state that there should now be enough Ribena black-currant syrup for most people who need it. If any difficulty is encountered in obtaining supplies, retailers should write to the sales director of the company.

Photographs of Social Events.—Cecil Walden, Ltd., commercial photographers, 45 Gerrard Street, London, W.1, make a feature of social events. A photograph taken by the company at the dinner of the National Association of Women Pharmacists was reproduced in the *C. & D.*, February 18, p. 198.

New Packs.—Menley & James, Ltd, 123 Coldharbour Lane, London, S.E.5, announce that, following the installation of new and improved plant, they are issuing Dexedrine tablets in new packs (containers of 100 and 1,000 tablets) at revised price from April 1.

156-page Price List.—The December 1949 price list of John Bell, Hills & Lucas Ltd., Worsley Bridge Road, London S.E.26, includes an 80-page section of drugs, galenicals and fine chemicals, 22-page tablet section, etc.

Sedative Cough Syrup.—First mention of a new sedative cough mixture issued by Roche Products, Ltd., Broadwater Road, Welwyn Garden City, is made in the company's latest trade price list, now available. The product is Sedulon (3:3-diethyl 2:4-dioxo-piperidine in a pleasantly flavoured vehicle).

Minimum Trade Order.—C. & D. Medical Products, Ltd., 558 Bath Road, Bristol, 4, ask holders of the *C. & D. Diary and Year Book*, 1950, to insert "1/2" in the blank space between "Minimum trade orders accepted:" and "doz." in the company's announcement on p. 562. Many copies the figure did not print.

Tax-free Packs.—Parke, Davis & Co., Staines Road, Hounslow, Middlesex, announce that the following are now available as tax-free dispensing packs: Aspirin compound tablets (CT611), bottles of 1,000 and over; aspirin, phenacetin and codeine tablets (CT726), bulk packages of 2,500 and over; Citralka liquid, bottle of 8 fl. oz.

Proprietary Hexamethonium Iodide.—Allen & Hanburys, Ltd., Bethnal Green, London, E.2, announce the introduction of hexamethonium iodide (C6), under the title Hexathide, in ampoules containing 50 mgm. in 2.5 c.c. (boxes of twelve ampoules). The compound is indicated for the diagnosis and treatment of hypertensive and peptic ulcers.

Johannesburg Trade Visitor.—Mr. J. Segal, M.P.S., managing director, Select Pharmaceuticals (Pty), Ltd, Joubert Park, Johannesburg, has, with Mrs. Segal, recently arrived in this country for the purpose of developing exports of drug trade goods to South Africa. Manufacturers and exporters of ethical pharmaceuticals and medicinal products, surgical goods, veterinary products,

acts, cosmetics and toilet preparations interested in the South African market are invited to communicate with Mr. Segal at the Cumberland Hotel, London, W.1.

Anti-mist Glass-cloth. — Potter & Parke, Ltd., 60 Artillery Road, Bishopsgate, London, E.1, are sole distributors of the trade of Smog anti-mist cloth for use on glass where there is likelihood of condensation. The cloth is particularly suitable for windows and windscreens—a simple wipe keeps the surface free from mist for from two to twenty-four hours according to temperature. The Smog cloth may be used repeatedly.

A New Sedative-analgesic. — A new carbhydrate-free sedative-analgesic, Dormiprin tablets, introduced by Clinical Products, Ltd., Richmond, Surrey, in containers of twelve and thirty tablets, is aimed to combine the sedative properties of carbromal and bromvaletone with the non-irritant analgesic action of alkalised pirin. The sole distributors are Moore Medicinal Products, Ltd., London and Weymouth.

Contract Bonus Scheme. — William Freeman & Co., Ltd., Subaseal Works, Peel Street, Barnsley, Yorks, manufacturers of the Suba-Seal hot-water bottles and other products, are again marketing these products during 1950 under a contract bonus scheme closely similar to the arrangement inaugurated in 1949. The new scheme, which commenced on March 1 and terminates on May 31, covers a wider range of products than last year. Copies of a broadsheet giving details of it may be obtained from the company.

Window Display Unit. — Coty (England), Ltd., 3 Stratford Place, London, W.1, are distributing stockists a complete window display outfit comprising a three-colour display background and product stand (20 in. x 15 in.), sets of product cards and price tickets, dummy pyramids of Airspun powder boxes and twenty-five Beauty-e cartons, together with full details.

Price Changes. — **BAYER PRODUCTS, LTD.**, Africa House, Kingsway, London, W.C.2, announce reduced prices from March 1 for all packings of Cantan brand vitamin C. — Reduced prices for certain packings of Prokayvit oral are announced by the manufacturers, **THE BRITISH DRUG HOUSES LTD.**, Graham Street, City Road, London, N.1. — New reduced prices for Soneryl brand butobarbitone are announced by the manufacturers, **PHARMACEUTICAL SPECIALITIES (MAY & BAKER), LTD.**, Dagenham, Essex; the reduction takes effect to hospitals and the trade on March 6 and to the public on April 3. — **PARKE, DAVIS & Co.**, Staines Road, Hounslow, Middlesex, announce reduced prices in operation from March 1 for their vitamin C tablets, 50-mgm. (CT 727). — New reduced prices for a number of products of **YARDLEY & Co., LTD.**, 33 Old Bond Street, London, W.1, came into operation on February 27.

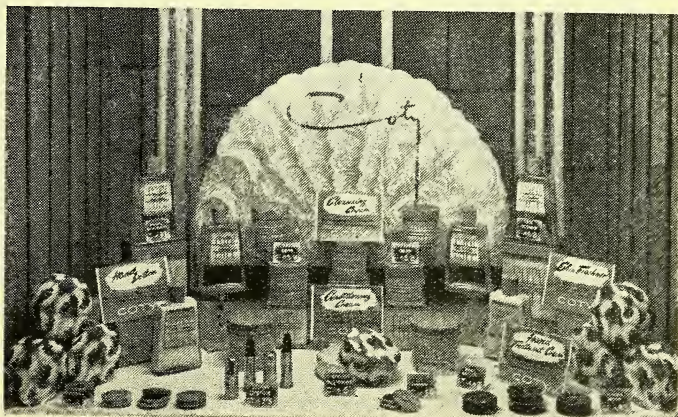
Proprietary Articles Trade Association

Additions to Protected List (Part 1).

— **Clinical Products, Ltd.**, Dormiprin tablets, 12's, 17s. doz., tax 33½ per cent., inclusive retail price 2s. 6d.; 30's, 34s. doz., tax 33½ per cent., i.r.p. 5s.

Musterole Fine Products Co., Ltd. (distributors: **Thos. Christy & Co., Ltd.**), Musterole (children), 22s. 9d. doz., tax 33½ per cent., i.r.p. 3s. 2d.; ½-doz. invoiced as five only.

Southall Bros. & Barclay (1935), Ltd., Southall's A.1 cod-liver oil, 4-oz., 11s. 9d. doz., 1s. 4d.; 8-oz., 17s. 6d. doz., 2s.; 16-oz., 30s. 6d. doz., 3s. 6d. (exempt).



LIABILITY FOR INJURIES ON PREMISES

THE Court of Appeal recently gave an important judgment defining the extent of the obligations an occupier of premises has to third persons entering upon them. Persons who come upon premises by the express or implied invitation of the occupier are called "invitees," and among invitees are members of the public who come upon the premises of a trader to look at his wares or make a purchase. A person calling at a trader's premises for a purpose in which he and the caller have a common interest is also an invitee—for example, travellers coming in with samples, or postmen delivering letters. Towards persons who pass by in the street the obligations of an occupier of premises are much higher than they are towards an invitee. If, for example, a passer-by is injured by a falling shop-blind, or if he should slip on a pavement that has become slippery as a result of the occupier's throwing water upon it in frosty weather, the occupier is in nearly every circumstance absolutely liable for the injuries thereby sustained.

Persons who come upon premises fall into different classifications. To invitees the occupier owes a greater duty than to licensees or trespassers. A "licensee" is a person who is permitted to come on the premises by the occupier, but with whom the occupier has no interest in common, such as he has with an invitee. The occupier's obligation to the licensee consists merely in giving warning of any concealed dangers on the premises.

Obligation Towards an Invitee

Hitherto there have been two different schools of thought on what constitutes the obligation of the occupier towards the invitee. According to the views of one, the occupier's obligation towards an invitee is to take reasonable care to make the premises safe; the other view is that the only obligation is to ascertain the existence of any dangers on the premises and either to remove them or to give adequate warning of their existence. The Court of Appeal has now decided that an occupier's duty is to take reasonable care to make the premises safe, and it is therefore no longer a necessary defence by the occupier that notice of the existence of the danger was given. In every case the question becomes one of fact—whether the occupier has in fact taken reasonable care to make the premises safe.

Whether he has done so or not depends largely on the relationship between himself and the injured party. So far as customers are concerned, it seems to have been suggested in one of the judgments in this case that the shopkeeper avoids liability if he gives notice to the customer of the existence of the danger. Thus, if a warning is put up saying that customers should not go to the far side of the shop because the ceiling is likely to fall, or because there is a hole in the floor, then a customer who disregarded the warning and met with an accident could, it appears, not recover damages. If, on the other hand, a person were expressly asked by the shopkeeper to call at his premises (as, for example, when the shopkeeper invites a firm to send an accountant to look at his books or a traveller with samples), then, it seems, towards such persons the fact that a warning has been given does not avail the trader if injuries are sustained by his invitee as the result of the dangerous condition of the premises.

Responsibility to Employees

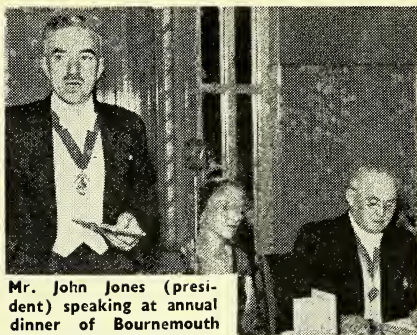
The position of a trader towards his servants, who may suffer injuries in consequence of the dangerous state of the premises, seems to be that, even though the servant may be aware of the danger, he may have complained about it, the trader as occupier of the premises, is responsible for any injuries suffered in consequence. It is not open to him in such circumstances to plead by way of defence that the servant or other person willingly undertook the risk. The Court has held that such a defence ought not to prevail against a servant who has knowledge of the existing danger and has made complaint about it, but has nevertheless carried on with his work; because mere knowledge of the existence of the danger is not sufficient unless it can be shown that the servant or other person not only realised the extent of the risk, but also that he freely and voluntarily undertook to run that risk.

Insurance During Sickness.—Even if an insured person is not entitled to sick benefit, National Insurance contributions may, in certain circumstances, be excused during illness. Employed and self-employed persons who were ill during the first months of the scheme but who, for a reason, did not apply for benefit, should notify their local National Insurance office

NEWS IN PICTURES



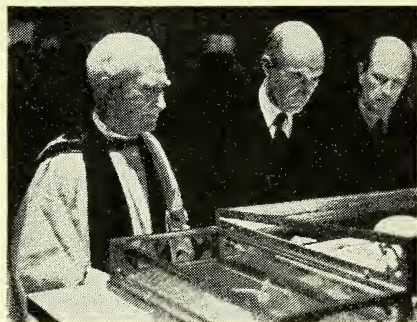
EAST METROPOLITAN "ANNUAL."—Guests at annual dinner of West Ham Association and East Metropolitan Branch of the Society (see p. 263).



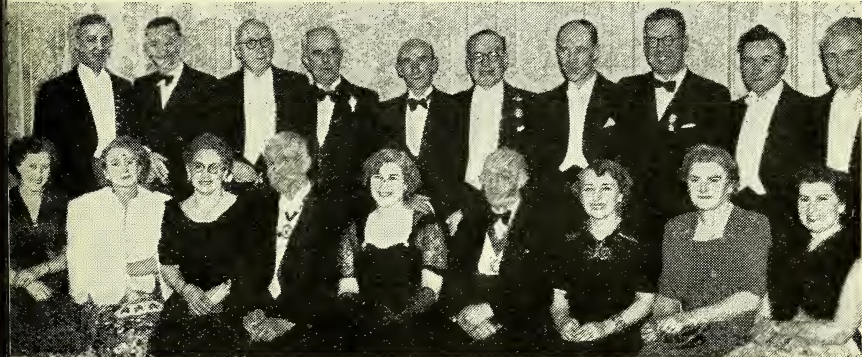
Mr. John Jones (president) speaking at annual dinner of Bournemouth Association (see p. 263).



DUBLIN WHOLESALERS' DINNER.—Mr. I. C. Dawson (chairman, Wholesale Drug Federation) and others at Federation's dinner in Dublin (see p. 264).



WAR MEMORIAL UNVEILED.—Vicar of St. Bride's Church, Fleet Street, London, at unveiling of war memorial at Unilever House (see p. 262).



DINNER-DANCE AT BELFAST.—A group photographed at the dinner-dance of the Pharmaceutical Society Northern Ireland in Belfast on February 20 includes: Front row, Mr. T. C. Scott (president, Pharmaceutical Society of Ireland), Mr. P. R. W. Shinner (president, Pharmaceutical Society of Northern Ireland). Back row, Mr. W. Gorman (secretary, N.I. Society), Mr. J. G. Coleman (registrar, Pharmaceutical Society of Ireland), Mr. H. F. Moore, Mr. C. A. Quinn (vice-president, Ulster Chemists' Association), Mr. J. Gregor, Mr. H. W. Gamble, Mr. P. A. Brady, and Mr. W. H. Boyd (treasurer, N.I. Society).

ELECTRON-MICROSCOPY IN THE STUDY OF SOAP

ELECTRON microscope and x -ray diffraction studies of soap crystals, carried on recently at the United States National Bureau of Standards by Gopal S. Hattiangdi and colleagues, have revealed characteristic features for many types of soap molecule that can be used for its identification and analysis. The electron microscope also indicates the individual soap forms that are present in a mixture, such as a commercial soap prepared from mixed fats or oils (which is not always possible with the x -ray spectrometer). When considered in conjunction with physico-chemical measurements of aqueous soap solutions, these data, the authors state, offer an explanation of the mechanical process of cleansing, and at the same time suggest a basis for evaluating the cleansing power of the different types of soap.

Thirty commercial soaps (toilet, medicated, glycerin, coconut, washing or laundry, and shaving varieties) and six synthetic soapless detergents were included in the investigation.

"Fibre Bundles"

The most characteristic feature of the electron micrographs for the pure soap is an interlocked mesh of fibre bundles of varying diameters and different degrees of twist but with a general tendency toward retaining both a criss-cross and a parallel structure. The diameters of the soap fibres depend upon the nature of the soap, concentration, rate of crystallisation, and other factors. Consequently no measurements and interpretations in terms of absolute units were made. An attempt was made, however, to represent schematically the growth of fibres and fibre bundles in terms of molecular packing. Packing of the soap molecules end to end, probably a minimum of ten, determines the "width" of the fibres. The association of the soap molecules in a direction perpendicular to the long axis of the soap molecules but in the plane of the hydrocarbon chains takes place almost indefinitely and results in the "length" of the soap fibre. The "height," or "thickness," of the fibre depends upon the number of soap molecules packed in a direction perpendicular to the plane of the carbon atoms but parallel to the long axis of the soap molecules.

Another outstanding characteristic revealed by the electron microscope is that

each pure soap exhibits unique and distinct features, such as a curdy mass, or filamentous, hairy, frond-like, or sheaf-like formations. These are probably the result of a type of structural unit, such as a micellar grouping within the soap fibres, and are related to the mosaic structure of the crystal surfaces or to the crystal structure of the individual soap phases. Whatever the interpretation, these patterns serve as excellent guides, it is suggested, for a quick characterisation of the pure alkali and for the identification of the components of commercial soaps of unknown composition. Thus, electron micrographs for the toilet soaps reveal distinct forms for sodium palmitate and sodium oleate. Shaving soaps are characterised by forms of sodium palmitate.

The physico-chemical properties of solutions of commercial soaps and detergent materials examined included electrical conductivity, surface tension, pH , opacity and rate of growth of foam, of aqueous solutions of numerous soaps and other detergents.

In most cases, no great difference was found in the value of any of the physico-chemical properties for product in any given type of soap as for example toilet, coco, or glycerin. X -ray diffraction data and observations by electron microscopy indicate further that the molecular arrangements and surface features (phase nature) of these products are very similar. A correlation between the two thus seems reasonable but has not been attempted quantitatively.

Efficient Cleansing

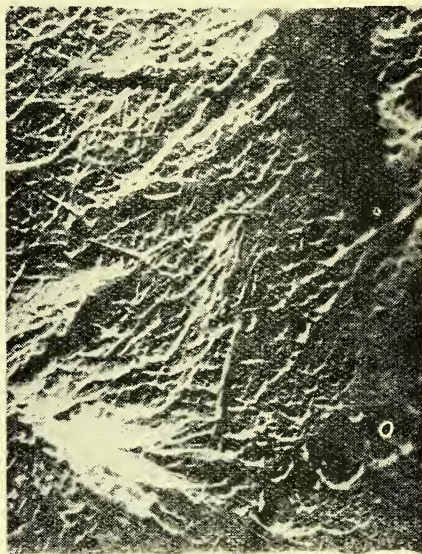
On the basis of colloid-chemical concepts, an efficient cleansing compound should have a low surface tension, a relatively high electrical charge, and ability to form colloidal micelles at low concentration—a property that facilitates solubilisation. When the physico-chemical data for solutions of soaps and synthetic detergent materials are considered together, it is seen that greater surface activity and a optimum degree of micelle-formation, both in number and in size, are obtained with dilute solutions of synthetic detergents and concentrated solutions of the soaps. Consequently, cleansing should be achieved better and more economically by using soap solutions of relatively high concentrations and synthetic detergent solutions in the lower concentration region.—*M. L.*

SOAPS SEEN THROUGH AN ELECTRON MICROSCOPE

The most striking feature is the interlocked mesh of fibre bundles of varying diameters and different degrees of twist shown in the pure soaps (1 and 2 below)



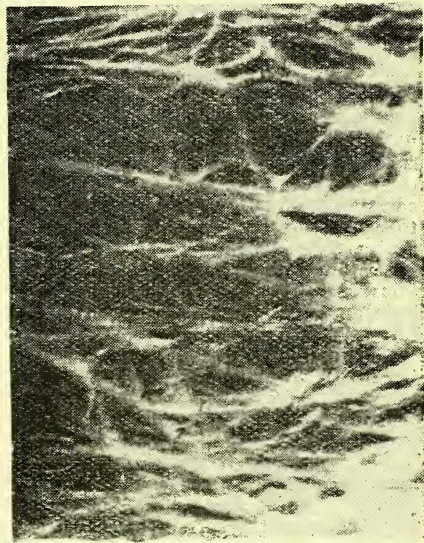
1. Sodium oleate (total magnification 20,000: electronic $\times 9,500$, optical $\times 2.1$).



2. Sodium palmitate (total magnification 11,000: electronic $\times 5,200$, optical $\times 2.1$).



3. The structure of sodium oleate can be detected in a toilet soap mixture containing that compound ($\times 22,000$).



4. Similarly the sodium palmitate structure shows in a sodium palmitate containing toilet-soap mixture ($\times 11,000$).

MODERN METHODS OF SOAP MANUFACTURE

Abstract of a lecture given to the London and South-eastern Counties Section of the Royal Institute of Chemistry

At a meeting of the London and South-eastern Counties Section of the Royal Institute of Chemistry at the South East Essex Technical College, Dagenham, Essex, Mr. A. H. CHARLTON, J.P., read a paper entitled "Modern Methods of Soap Manufacture." After a brief historical outline Mr. Charlton gave details of manufacture which are summarised below.

Soap can be manufactured by various processes, but in England the "boiled" process is almost universally adopted, the type of soap produced being determined by the raw materials employed. For example, washing soap requires tallow, coconut or palm oil, palm kernel oil, soya bean oil and resin. A good toilet soap requires beef tallow, palm kernel oil or coconut oil, and a little resin. Oils, fats, resin, water and a solution of caustic soda are charged into a pan and maintained in a rapid state of boiling by the admission of live steam. Saponification of the oils and fats takes place with the production of soap and glycerin (care must be taken that there is not an excess of caustic soda in the pan at the end of the process). Salt is then added, which dissolves to form brine, the glycerin dissolving in the brine and the soap floating on the top as a granular mass. The glycerin solution, "spent lye," is run off and subsequently treated to recover both salt and glycerin. The soap remaining in the pan is boiled up again with more water and an excess of caustic soda to ensure complete saponification of the oils and fats. A further excess of caustic soda is added in sufficient quantity to cause the soap to become insoluble in the caustic liquor. The liquor which separates at this stage, "half-spent lye," contains an appreciable amount of caustic soda and is run off and used again in the first stage described above. After the half-spent liquor has been run off the soap is boiled up with more water and passed to the "fitting" operation.

"Fitting"

The "fitting" process is the one on which the art of soap-making largely depends. The contents of the pan are adjusted to give the correct balance between soap, water, a small amount of caustic soda and a smaller amount of salt so that when the pan is shut down the contents separate

into two distinct layers. The top layer consists of clear, neat soap and the bottom layer, the "nigre," contains water, caustic soda and impurities originally present in the soap. If the "fitting" operation has been correctly carried out, the soap will contain 63 per cent. combined fatty acid, 7 per cent. combined caustic soda and 30 per cent. water. That composition is accepted as the standard for genuine undried soap.

The soap is then allowed to stand in the pan for three or more days, during which time the "nigre" separates and the soap cools from 212° F. to 165-170° F. and is then removed from the pan. The soap is next pumped to a "crutch" (a mixing apparatus) where it is neutralised, and colouring matter and perfume added. The soap is mixed and run into steel boxes, and after cooling for two or three days, the side of the boxes are removed to leave blocks of soap weighing approximately 12 cwt. The blocks are cut into slabs and then into bars, which are stacked in open piles to allow surface drying, prior to packing.

In the manufacture of soap flakes, molten soap is pumped on to a chilled roller which causes the soap to solidify as a thin film. The film, scraped from the roller by knives, is passed through a drying chamber in short ribbons and approximately 15 per cent. of the moisture is removed. Soap powder is produced from the coarse flakes by passing them through a high speed grinder.

Toilet Soap

The starting-point for the manufacture of good-quality toilet soap is soap flakes. The flakes are mixed with perfume, colouring matter and super-fatting materials and passed through a mill to ensure intimate mixing of the ingredients. The soap leaves the mill as thin ribbons and is passed to another machine called the "plodder." In the "plodder" the soap is pressed, by an archimedian screw, through a perforated plate into a conical chamber at the end of which is a die plate which determines the shape of the bar finally extruded. The extruded bar is passed to an automatic cutting machine which cuts the bar into pieces of an exact weight. The cut pieces are then passed to a stamping machine.

Continuous Process

Soap-making is essentially a batch process, and for many years attempts have been made to devise a continuous process. No claim is made that soap manufactured by continuous process is superior to, or even equal to, that manufactured by the conventional process. The requirements of a continuous process are the brining together of the correct amounts of oils, fats and caustic soda under conditions which allow instant saponification to occur. Although that can fairly easily be arranged, the problem of separating glycerin remains.

Softened Water Unnecessary

DR. J. G. A. GRIFFITHS (chairman) asked if distilled water was necessary in the various washing processes in soap-making and if, on the commercial scale, softened water was used as wash water. MR. CHARLTON replied that it was unnecessary to use softened water, since softening automatically occurred when the water, fats, etc., were boiled in the pan with caustic soda. DR. K. G. A. PANKHURST asked whether the calcium carbonate and magnesium hydroxide precipitated in the pan, by virtue of the water softening which takes place *in situ* on the addition of caustic soda, had any effect on the soap. MR. CHARLTON replied that the precipitated hardness salts had no deleterious effects on the soap and he knew of no soap manufacturer who went to the trouble of removing the hardness from the water. MR. J. S. ARTHUR asked for information on sea-water soap. MR. CHARLTON explained that sea-water soap was made from coconut oil, and contained an excess of alkali to assist its solubility in sea-water. It might, therefore, not be suitable for sensitive skins. During the war a mixture consisting of half coconut oil and half some other oil, according to the supply position, was used in place of coconut oil for this type of soap. DR. K. G. A. PANKHURST pointed out that the main difficulty in the use of synthetic detergents was the ease with which a reversal of rôle occurred. A synthetic detergent would readily remove dirt from a fabric and just as easily redeposit the dirt. MR. CHARLTON agreed; he believed that the explanation lay in the superior suspending power of soap as compared with synthetic detergents.

MR. SLATTERY said that the soap industry was in a state of flux following the introduction of the continuous process. The production of a spent lye richer in glycerin than that produced by the conven-

tional method assists in effecting a saving on the fuel required to concentrate the lye. In the continuous process the soap and "nigre" can be separated by centrifuge and the soap used for the production of chips, since there is no deleterious effect if a little alkali remains in the soap. Bar soap and toilet soap, however, cannot be produced by this method. MR. CHARLTON agreed with these comments.

TOILET SOAP DESIGN

For some months competition in the field of cosmetics and toilet products has been growing increasingly keen, and in the contest many products have taken on a heightened individuality of appearance. Possibly owing to soap rationing, however, toilet soap, the one product in this class that seems ideally adapted to take on new and pleasing shapes, continues for the most part to be manufactured and sold as originally produced. For many years past most manufacturers have been content to turn out a simple round or oval tablet bearing their brand name in intaglio or relief.

Comparatively few, in the writer's view, have even begun to exploit the full possibilities of shape, colour and texture. Perfume, of course, is another matter, for it is true that great subtleties of perfume have been introduced by the soap maker. Why has not the same ingenuity been given to design? Ovals and rounds are not obligatory shapes. It is by no means certain that they are even the best, for do not they tend to slip out of the hands when in use? Angular shapes can combine practicality with appeal to the eye, provided they are thought out, so as to give a mass of the correct proportions that it is a pleasure to handle. Inscriptions and designs, too, whether pressed in or in relief, can be made to fit into an overall harmony of colour, scent and shape. Trade marks can be given full play. They can, indeed, be even more effective by virtue of the third dimension they offer to the designer. The truth is, perhaps, that the shape of the tablet may not have been regarded as coming within the scope of the designer, even though he may have been consulted about the wrapper. The time has come to change that.—*Brian Redgate.*

Research Laboratory Report.—The report of the Chemistry Research Laboratory, Teddington, for 1948, recently published, records investigations of coal tar compounds with insecticidal properties.



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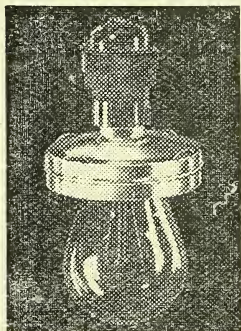
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Syllabus, Entrance Forms, etc. may be obtained from:—

The Secretary, N.A.O. 8 Victoria Street, LIVERPOOL, 2

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VOL. CLIII MARCH 4, 1950 No. 3654

Insects and Poisons

IN the field of insecticides, which during the last few years has become congested with an almost overwhelming number of new compounds (one author, for example, lists some 10,000), the recent publication of works devoted to two specialised aspects of insect control is welcome. The publications are *Pest Infestation Research, 1948*, and *The Biology and Control of the Ant Pest*. Both are published by H.M. Stationery Office.

The research of the Pest Infestation Laboratory of the Department of Scientific and Industrial Research, in 1948, with which the first publication deals, was directed chiefly to foodstuff infestation. It has a direct pharmaceutical application, however, as some foodstuff pests (e.g., *Niptus hololeucus*) infest also the contents of drug rooms. Biological studies were conducted on the brown house moth, clothes moth and leather beetle, and a comparative study of the biology of certain ptinid beetles suggests that while *Ptinus tectus* (the Australian spider beetle) is the major ptinid pest in Britain, other species (including *Niptus hololeucus*) are not likely to become serious pests in this country. Difficulty was experienced in correlating the resistance of stocks of house flies in different laboratories used in evaluating insecticidal potency, and it became clear that different methods of breeding, handling, etc., could affect the susceptibility of the stocks to pyrethrins.

The work of the laboratory has necessitated the elaboration of specialised means

of determining chemically small quantities of organic halides such as methyl bromide. The application of radioactive isotopic tracers to this work has been begun, and radioactive methyl bromide, for example, has been prepared, using Br^{82} . The reactions of methyl bromide on biological material, e.g., proteins, has also been studied.

As the result of some years' observations in experimental ant colonies and in the field, Professor A. D. Peacock and colleagues at the University College, Dundee (University of St. Andrews), have contributed an authoritative monograph on the biology of *Monomorium pharaonis* (Pharaoh's ant) of which little was formerly known, and have indicated means of eradicating it. Partly because the ant makes nests in places inaccessible to normal insecticides, this pest has been particularly difficult to eradicate. In addition to infesting foodstuffs of all kinds, Pharaoh's ant (possibly so called from the mistaken tradition that it was one of the plagues of Egypt) exist often in vast numbers in kitchens, ships, laundries and hospitals, even infesting the bedding of patients, and, consequently, playing a part in cross infection. From the commercial point of view, as the authors point out, the presence of ants constitutes a "threat to business prestige." Eradication measures call for technical knowledge, conscientiousness and patience. Infested buildings, the authors recommend, should be first inspected to determine so far as possible the locations of the colonies; trails should be established by pre-baiting (with, for example, liver); and finally, for hidden colonies, poison bait should be laid. This should contain sodium fluoride or thallium sulphate, or both. Methods of preparation of the bait, and precautions to be taken, are given. Difficulties in the field include, for example, the by-passing of the bait by the ants, and the need for continually renewing the baits before they dry over a period of several months. Some protection against contamination of food with the poison bait is provided by placing the bait in boxes, which the authors rightly suggest may in certain circumstances be labelled "poison."

Caution in the use of insecticides, particularly those containing more potent poi-

sons, cannot be over-emphasised. In view of the catastrophic experiences in the use of organic phosphorus insecticides reported by Drs. Bidstrup and Hunter (see p. 285), it is essential that adequate measures be taken when these compounds become available in Britain shortly to ensure the safety of those likely to come in contact with them.

Recommended New Food Standards

A REPORT which the Minister of Food has approved for publication (see p. 280) recommends amendments in the present official definition of edible gelatin and in the accepted limits for metallic contamination. According to the new definition, "edible gelatin" means clean, wholesome protein obtained by extraction from collagenous material, free from objectionable taste and offensive odour, completely soluble in warm water to give a clear or translucent colloidal solution, and which yields not more than 3.25 per cent. by weight of ash. Changes in both upward and downward directions are recommended in the limits for metallic contamination. For arsenic the limit is relaxed from 1.4 parts per million arsenious oxide to 2.0 p.p.m. elemental arsenic. For lead it is lowered from 10 to 7 p.p.m. The limits for copper (30 p.p.m.) and zinc (100 p.p.m.) are unchanged.

Before steps are taken to incorporate the recommendations in a Food Standards Order under the Defence (Sale of Food) Regulations (and simultaneously, of course, to revoke the existing Edible Gelatin Order, 1948), a period of two months is being allowed during which representations may be made by interested parties. Those wishing to make such representations should write to Mr. K. R. Allen, the secretary of the Food Standards Committee, at the offices of the Food Standards and Labelling Division, Ministry of Food, 47 Portman Square, London, W.1, not later than April 30.

The Minister of Food has also approved for publication a report of the Committee's metallic contamination subcommittee, recommending the introduction of statutory limits for arsenic in food. While acknowledging that the limits recommended in

1903 by the Royal Commission on Arsenic have been found generally satisfactory, the report calls for some revision in view of changes in food manufacturing processes, since the beginning of the century, as well as changes in analytical techniques (enabling more exact determinations of arsenic to be made), the introduction of new food ingredients, and the fact that arsenic may occur naturally in shell-fish in amounts greatly in excess of the Royal Commission's limits. Continued strict application of limits closely approximating to those of the Royal Commission is recommended for staple foods, with slight relaxations for certain adjuncts (colourings, edible gelatin, spices, hops), which are normally consumed in very small quantities. The method of expressing the arsenic content as parts per million is recommended in place of the obsolescent expressions "grains per lb." or "grains per gall." The recommended limits for various types of foodstuff are tabulated on p. 282. In arriving at its conclusions the subcommittee received evidence from trade and technical interests, and the Food Standards Committee reviewed the evidence before adopting the subcommittee's report, but a further period of three months is being allowed for representations. Interested parties should write before May 31 to Mr. K. R. Allen at the address already given.

Pharmacy in Udsawland

A FANTASTIC picture of the "pharmaceutical trades" is given by a writer (Joseph Wild) in the February 18 issue of "New Dawn," the official organ of the Union of Shop, Distributive and Allied Workers (to which the Association of Pharmaceutical Employees is subsidiary). To do him justice, Mr. Wild must have put quite a lot of work into the preparation of his article, but some of his "facts" seem to have been collected in the half-light of a forgotten dusk rather than in the "first light" of his paper's title.

For example, he goes back to a memorandum presented to "the Ganzoni Committee" by the National Pharmaceutical Union for a reference to "the enormous number of vendors of proprietary medicines who have never undergone the expensive training required by a chemist."

The Ganzoni Committee (its full title was the Select Committee on Medicine Stamp Duties) sat in 1936, and dealt with conditions that no longer exist. While there may still be too many unqualified vendors, their number and what is the value of the medicines they sell are quantities that were materially altered by the passing of the Pharmacy and Medicines Act, 1941 (which the writer of the article does not mention).

According to Mr. Wild, "retail chemists registered with the Pharmaceutical Society are members of the National Pharmaceutical Union," and "the organised retail chemist or druggist is, through the N.P.U., a member of the Proprietary Articles Trade Association." Both statements suggest some sort of combined membership of what are in fact independent bodies. While the N.P.U. certainly acts as collecting agent for the P.A.T.A., 100 per cent. representation is something the P.A.T.A. may devoutly desire but has by no means yet achieved.

Just as woefully astray is a charge (quoted from a 1942 monograph by Hermann Levy) that "the pharmaceutical service in the widest sense is . . . the most spectacular case of the encroachment of one group of retail trades upon another." On this subject the Report of the Committee of Inquiry (published three years before Professor Levy's "findings") states: "Contrary to what appears to be the belief of some pharmacists, the evidence does not support the view that pharmaceutical business includes a wider range of non-pharmaceutical articles than in earlier times." Since 1948, moreover, the range has narrowed rather than widened.

The crowning irrelevance is one that is hardly pardonable in a trade unionist claiming to be *au fait* with an industry. "U.S.D.A.W. is . . . represented on the . . . Pharmacy J.I.C., England and Wales." Does Mr. Wild know when the J.I.C. last functioned? He would do well to talk it over with the secretary of the Union.

"There are many more problems confronting the pharmaceutical trades awaiting solution, as we shall discover later." There certainly are, but with Mr. Wild as pilot the voyage of discovery promises to unfold as curious a scene as Gulliver found

on his travels, or Alice surveyed through her own looking-glass. Our advice to Mr. Wild and the paper's editor would be to check their discoveries with some of the pharmacists who presumably are numbered among the members of the Union.

Is Boric Acid Really Necessary?

THE death of six babies in Canada from the use of a 2.5 per cent aqueous solution of boric acid instead of sterile water in preparing their feeds has led the "Lancet" (February 4, p. 216) to review the toxicity records of the compound. And a sorry story it is—a death from five days' application of boric acid to a sore on the leg; a baby's death from borax and honey given for thrush; a breast-fed baby's death after boric acid had been used to cleanse the mother's nipples; twenty deaths traced before 1943 and another dozen recorded since. All from a drug which twenty out of thirty American doctors questioned in 1943 were not even aware was toxic internally. Banned from foodstuffs because its effect is cumulative, boric acid is not labelled "poison" and continues to find a place in many medicine cupboards. The "Lancet" advocates its being removed from general use as soon as possible, and though it is not perhaps for pharmacists to take the lead in this matter, it is as well that they should be aware of the risks.

A PHARMACIST'S ANTHOLOGY

"TAKE this soft March snow, melt it, and bottle it. It keeps pure as alcohol. The very best thing in the world for weak eyes. I have a whole demijohn of it myself. But the poorest man, afflicted in the eyes, can freely help himself to this same all-bountiful remedy." . . . "Then there's 'Poor Man's Plaster' for wounds and other bodily harms; an alleviative and curative compounded of simple, natural things; and so, being very cheap, is accessible to the poorest sufferers." "Rich men often use 'Poor Man's Plaster'." "But not without the judicious advice of a fee'd physician, dear Blandmour." "Doubtless, they first consult the physician; but that may be an unnecessary precaution."

From "Poor Man's Pudding and Rich Man's Crumbs," by Herman Melville.

MINISTRY OF FOOD REPORTS

1. Edible Gelatin

THE Food Standards Committee has considered a Ministry of Food proposal, supported by the Board of Trade, that a standard of composition should be prescribed for edible gelatin, and has taken evidence from representatives of the trade and from other interested parties.

For the purposes of the Edible Gelatin (Control) Order (S.R. & O., 1947, No. 161), which prohibited the use of edible gelatin in the manufacture of any food not specified in a Schedule to the Order, it was necessary to define edible gelatin, and that was done in the following words:—"Edible gelatin" means the clean, wholesome protein which (a) is obtained by extraction from collagenous material; (b) is free from objectionable taste and offensive odour when in a warm 5 per cent. aqueous solution; (c) contains, when air-dried, not more than 3.25 per cent. by weight of mineral matter; and (d) contains, when air-dried, in each million parts by weight, not more than 1.4 parts by weight of arsenic (expressed as arsenious oxide— As_2O_3), 10 parts by weight of lead, 30 parts by weight of copper or 100 parts by weight of zinc.

The supply position was reviewed in the autumn of 1948 and it was agreed with the Board of Trade that there was no longer any need for controlling the usage of edible gelatin. The Ministry of Food, however, considered that it would be in the interests of the consumer to retain in force a definition of edible gelatin, and the Board of Trade supported that view on the ground that a standard would prevent the diversion of technical gelatin to edible purposes. In consequence, an Order was made in November 1948 (S.I., 1948, No. 2460), re-enacting the definition of edible gelatin given above. The Food Standards Committee has co-ordinated its inquiries with those of the gelatin committee of the British Standards Institution, which has itself been in consultation with Commonwealth countries to secure general agreement on British Standards for edible and technical gelatin.

Evidence before the Committee

In addition to representatives of the Ministry of Food, the following organisations gave evidence before the Committee: The Federation of Gelatine and Glue Manufacturers, Ltd.; Association of Glue and Gelatine Distributors, Ltd.; Meat Sec-

tion, Food Manufacturers' Federation; and British Food Manufacturing Industries Research Association. The trade representatives stated that the raw materials now used for the manufacture of edible gelatin consisted of selected hides or bones. Before the war, hides were imported chiefly from India and China; today, the bulk of supplies are from South America and North Africa. Total current annual production of edible gelatin from these materials amounted to about 8,000 tons, of which about 400 tons were sold retail. It was suggested to the trade representatives that the figure of 3.25 per cent. ash in the Order, which was higher than that prescribed by Commonwealth countries might cause difficulty to United Kingdom exporters of gelatin. Representatives of the meat trade pointed out that they already stipulated a maximum lime content of 0.2 per cent. for jellied goods in glass, and proposed a limit of 2.5 per cent. ash for edible gelatin. The F.G.G.M., Ltd., said that the ash was largely composed of calcium salts, and was in no way detrimental. In their view the limit of 3.25 per cent. had not adversely affected the export trade, and did not prevent the manufacture of the gelatin of low calcium content required for the manufacture of some foods. A limit of 3.25 per cent. was considered reasonable.

The trade representatives also considered that the existing limit of 1.4 p.p.m. As_2O_3 for the arsenic content of gelatin was too stringent, since it excluded many otherwise excellent gelatins. They appreciated that the arsenic content should be kept to a minimum, but an increase in the limit to 2.0 p.p.m. was felt to be justifiable. Results of collaborative analyses in different laboratories, however, showed considerable variation, and the trade was therefore in favour of laying down a uniform method of determining the arsenic content. The trade representatives pointed out that the arsenic content of edible gelatin could not be regarded as a safe index of quality, since technical gelatin often contained no more arsenic than the edible grade.

The lead content of gelatin, they pointed out, was solely from, and depended upon the origin of the raw material. As much as 50 per cent. of the gelatin extracted from hides might contain 5 p.p.m. of lead. The lead content of bones was said to vary from 10 p.p.m. to, exceptionally, 1,000 p.p.m. In general, a figure

o p.p.m. was considered reasonable. o p.p.m. had been accepted by the Society of Public Analysts, and in Australia the limit was 20 p.p.m.

Committee's Conclusions

The Committee has accepted the definition "Edible gelatin means the clean, wholesome protein which is obtained by extraction from collagenous material," and considers that edible gelatin should dissolve completely in warm water to give a clear or translucent colloidal solution. The committee is aware of marked variations in the jelly strength of retail samples, but considers it would be impracticable to prescribe a satisfactory and suitable jelly strength test. The generally accepted quantitative method involves the use of an instrument (the Bloom gelometer) which is not part of normal laboratory equipment; and the prescription of a jelly strength could not in itself prevent technical gelatin being sold for edible purposes, since inedible gelatin may have a high jelly strength. Little correlation exists between setting qualities and the other properties of gelatin. The Committee considers that, as supplies become more plentiful, edible gelatin of unsatisfactory setting quality is unlikely to find a ready retail market, and has therefore decided not to recommend a jelly strength either for repacked gelatin or for gelatin sold loose.

The word "ash" is recommended to be substituted for the ambiguous term "mineral matter." The principal object of the ash limit is to ensure that hides are properly washed before processing. Where high-grade edible gelatin is obtained from med hides, the ash content might range from 2½ per cent. to 4 per cent., and it is reasonable to conclude that the limit of 3.25 per cent. could be met by blending. Analytical data recently supplied by the British Food Manufacturing Industries Research Association confirm this view. An ash content of 3.25 per cent. is recognised as the lowest figure universally attainable under present-day commercial conditions.

The Committee referred the limits for metallic contaminants to the metallic contamination subcommittee for examination, and the subcommittee, after consultation with the Port Medical Officers of Health, recommended the adoption of limits as follows: Arsenic: 2 p.p.m. As (2.7 p.p.m. As_2O_3); lead: 7 p.p.m.; copper: 30 p.p.m.; zinc: 100 p.p.m. (the last two unchanged). The Committee has accepted the subcommittee's advice against accepting a trade

proposal that uniform methods of analysis should be prescribed for metallic contamination. They have pointed out that methods are subject to change and improvement, and the prescription of statutory methods might lead to an undesirable rigidity in analytical work. A committee of the Society of Public Analysts and other analytical chemists had done valuable work on standardising analytical methods, and if there were any major difficulties in regard to the analysis of edible gelatin that Society appeared to be the appropriate body to deal with them. With foods such as edible gelatin, which are normally used in small amounts, it is considered permissible to adjust the present arsenic limit to 2 p.p.m. (As). The present limit of 10 p.p.m. for lead is considered to be too high, and the Committee feels that it should be reduced to the lowest point consistent with the best commercial practice. Finally, it is considered unnecessary to specify the content of sulphur dioxide, as the Public Health (Preservatives, etc., in Food) Regulations lay down the maximum quantity of preservative permitted in edible gelatin (1,000 p.p.m. for SO_2).

2. Arsenic in Food

A metallic contamination subcommittee of the Food Standards Committee was set up in July 1948 to consider the available evidence in regard to the effect of the ingestion of foods contaminated with metals or other injurious elements, and the technological problems that might arise from the prescription of limits for such contamination; where the evidence was sufficient to justify the recommendation of limits for any metal or other injurious elements, to advise what these limits should be and whether they should be applied to foods generally, or to any particular food or group of foods; and generally to assist the Committee to make recommendations.

The report points out that some foods have a natural metal content (e.g., plants derive traces of copper from the soil during growth; shell-fish derive traces of arsenic from the material on which they feed). Many foods may be contaminated with metals or other injurious elements derived from insecticides, or during the process of manufacture, and in those cases it may be possible to prescribe limits of contamination. The subcommittee considered arsenic, lead, copper, tin, zinc, in turn. A few elements are known to be highly toxic and to serve no physiological purpose, and these should be excluded from

foods so far as possible. In those cases the problem is primarily one of determining the lowest commercially practicable limits of contamination. The occurrence of a toxic element in a food must be considered in relation to the possible total intake from all sources. The subcommittee considered evidence contained in the Report of the Royal Commission on Arsenic (published 1903), and current analytical data supplied by the Government Laboratory, the British Food Manufacturing Industries Research Association, the Port Medical Officers of Health and food manufacturing firms. The Royal Commission's recommendation was that "it would be entirely proper that penalties should be imposed under the Sale of Food and Drugs Act upon any vendor of beer or any other liquid food, or of any liquid entering into the composition of food, if that liquid is shown by an adequate test to contain 1/100 of a grain or more of arsenic in the gallon; and with regard to solid food—no matter whether it is habitually consumed in large or in small quantities or whether it is taken by itself (like golden syrup) or mixed with water or other substances (like chicory or "carnos") if the substance is shown by an adequate test to contain 1/100 grain of arsenic [As_2O_3] or more in the pound."

"After a lapse of forty-five years," states the report, "the Royal Commission's recommendations call for some revision." Food manufacturing processes have been altered and new processes introduced. Arsenical insecticides for spraying fruit and vegetables are now more widely used. New foods, or food ingredients, have come on the market. Analytical technique has been improved. A great deal more information is now available with regard to the degree of contamination commonly met with in food ingredients, and it has been found impracticable to keep the arsenic content of some food adjuncts such as colouring and flavouring matter within the narrow limits recommended by the Royal Commission. Arsenic is found naturally in shell-fish in amounts greatly in excess of the Royal Commission's limits.

The Royal Commission's recommendation that the limit of 1/100 gr. of arsenic per pound should be applied to all solid foods is now known to require qualification. The risk to public health is not measurably increased by raising the limits of contamination for certain food adjuncts consumed in very small quantities so long as the present recognised limits are rigidly applied to the staple foods.

In recommending that the limits of arsenic contamination as As instead of (as now almost universally) in terms of arsenious oxide, and with the British Pharmacopoeia prescribing all limits and methods of testing on the basis of As_2O_3 , the Committee states that its proposed method would bring the method of expressing arsenic into line with that followed for all other trace elements. Any initial difficulty could be mitigated by expressing limits for arsenic in terms of the element (As) with a note of the corresponding figure for arsenious oxide (As_2O_3) in brackets.

The terms of reference of the Food Standards Committee precluded recommendations in relation to standards for water or for composition of liquid milk, but the subcommittee records evidence leading to the view that water and milk should not normally contain arsenic, but if, inadvertently, arsenic has gained access to them they should not be consumed if they contain more than 0.1 p.p.m. of arsenic.

Recommended Limits

The following limits for arsenical contamination of foods are recommended to be prescribed statutorily:—

Food	Parts per million	
	Arsenic (As)	Arsenious Oxide (As_2O_3)
Beverages, ready-to-drink	.1	.14
Foods not otherwise specified	1.0	1.4
Food colourings containing more than 10 per cent. colouring matter	5.0	6.6
Beverage base—		
(a) Total solids up to 35 per cent. ...	.1	.14
(b) Total solids between 36 per cent. and 69 per cent. ... ..	.5	.7
(c) Total solids over 70 per cent.	1.0	1.4
Edible gelatin	2.0	2.7
Dried herbs	5.0	6.6
Spices	5.0	6.6
Dried liquorice extract ...	5.0	6.6
Dehydrated onions	2.0	2.7
Phosphatic constituents of raising powders ..	2.0	2.7
Hops and hon concentrate	2.0	2.7

The report concludes with a suggestion that the Ministry should arrange to be supplied periodically with figures of arsenical contamination compiled in the normal course of events by the Food Manufacturers' Research Association, by Port Medical Authorities and by other bodies

SOCIETY'S PRESIDENT AT HOVE

THE Brighton and Hove Branch of the Pharmaceutical Society and the Brighton and Hove Association of Pharmacy held their annual dinner and dance in Hove on February 15, when among 200 members and guests were the president of the Society (Mr. H. Clement Shaw) and Mrs. Shaw, the mayor and mayoress of Brighton and the mayor and mayoress of Hove. In proposing the toast "The Pharmaceutical Society," Mr. H. B. MACKIE (resident of the Association) drew attention to the present man-power position, and said that his department of the Brighton Technical College would shortly be enlarged to make it one of the largest in the country. The teachers were ready to do their part in solving the problem. Mr. SHAW, responding, said that the Society had recently undertaken a national survey of man-power and that the report would shortly be presented to the Council. He hoped it would establish the number of entrants necessary to maintain an

adequate pharmaceutical service under N.H.S. ALDERMAN J. TRISTRAM (chairman, Standing Pharmaceutical Advisory Committee), in proposing "The Branch and Association," said that the district had always provided an important contribution to the profession, not the least of which was the large number of men and women who had obtained their degree or diploma from the local school of pharmacy. He congratulated Mr. Mackie on his service to the College since 1919. Mr. STUART PADWICK (branch chairman) replied. Mr. DONALD HUDSON, who proposed "The Visitors," referred to the assistance given by the two boroughs during the 1948 Conference. He was happy, he said, to reunite at the dinner three men who had played such an important part in it: the president of the Society (Mr. Clement Shaw), the Conference chairman (Dr. Norman Evers) and Councillor Captain Didden (who was the Mayor of Hove at the time of the Conference).

PERFUMERY THROUGH THE AGES

A LECTURE entitled "Perfumery through the Ages" was given by Mr. Paul Johnson (chief perfumer, Goya, Ltd.) to the Chemistry Division of the North London Pharmaceutical Association at Whetstone on February 20.

History of Perfumery

MR. JOHNSON said it appeared that the use of aromatic substances was originally confined to religious rituals and that the word "perfume" was derived from "per fumum," meaning "through smoke" or by combustion." No doubt this referred to the practice of burning aromatic gums and woods by heathen priests. As far back as 3500 B.C. the Egyptians were well versed in the art of make-up, and healthy womenfolk used red and white paint for the face, stibium pencils for painting the eyelashes, and kohl (an antimony salt), which they applied to the pupils of the eyes to give them extra brightness, and to make them appear larger. Henna was also used to impart a rosy tint to the fingers and the palms of the hands. Combs, razors and mirrors were quite common and perfumed ointments and oils were sold in bottles, vases and pots of artistic design, made of alabaster, onyx, glass and porphyry. These were the forerunners of the present-day flacons." When the Jews returned to

their fatherland from Egypt, they brought with them many of the refinements they had learnt from their masters. In Greece, the use of perfumes and cosmetics led to abuse, and men became so effeminate that a law had to be passed forbidding them to use cosmetics for make-up. Much the same situation developed in Rome under the Cæsars. In the Renaissance period Catherine of Medici sponsored the development of the perfumery industry in France. It was the fashion in those days to wear perfumed gloves and the glove-maker was the recognised perfumer. Nowadays, the perfumer works as an independent creator, but he still shows a great interest in the world of fashions.

Extraction of Oil

Essential oils for the perfumer, said the speaker, are extracted from all parts of the plant by a variety of methods. Steam distillation is widely used, but when the flower is too delicate to be subjected to heat, it is placed in contact with lard or beef suet on glass frames and the perfume is eventually extracted from the grease with alcohol. Petroleum ether is now used to extract oil. The solvent is evaporated in vacuum stills, and the residue (a mixture of oil and flower waxes) further treated to separate the essential oil or absolute, as it is called, from the waxes.

PHARMACEUTICAL SOCIETY OF NORTHERN IRELAND

A MEETING of the Council of the Pharmaceutical Society of Northern Ireland was held in Belfast on February 17, the president (Mr. P. R. W. Shinner) in the chair. Also present were Messrs. H. W. Gamble (vice-president), W. H. Boyd (treasurer), H. F. Moore, James Irwin, W. P. Ewart, John McGregor, Walter C. Tate, Charles Abernethy and Professor E. B. C. Mayrs. The secretary (Mr. W. Gorman) was in attendance. Apologies for absence were received from Messrs. J. McDowell, H. P. Crossin, S. E. Campbell and F. R. Moore.

A letter was received from Mr. H. P. Crossin (a member of the Council) thanking the president for an expression of sympathy in his accident. A letter was received from Mrs. Sweeney, Londonderry, thanking the Council for a message of sympathy on the death of her husband.

Examiners' Reports

The reports of the examiners at the December 1949 examinations were received; consideration of them was postponed until the next meeting.

DR. K. BULLOCK said that in Part 1 of the Preliminary Scientific chemistry 40 per cent., and in Part 2 43 per cent., of candidates had failed. On the whole they had not been well prepared, though the standard attained by those who did pass was high. Thus of the candidates passing Part 2, 70 per cent. had obtained over 70 per cent. of possible marks in either theory or practical, while about 18 per cent. had obtained over 70 per cent. of possible marks in both theory and practical. DR. R. H. SLOANE described the results of the theoretical paper on physics as disappointing. Of the twenty-seven candidates who had failed in the examination twenty-six had failed in physics (together with some other subject) all but one of them in the theoretical paper. In addition, nine had been referred in physics, three failing in both theory and practical, four in theory only and two in practical only. MR. G. WILLIAMS said that too little attention had been paid to practical biology-zoology.

In the Final Qualifying examination (Part II) DR. BULLOCK said candidates in chemistry should pay more attention to the official assay processes. Questions about analytical work seemed to be avoided and in the practical work the writing up of qualitative reports left much to be desired. MR. G. PERRINS re-

ported that theoretical pharmacognosy questions had been answered well, but that practical work was not of the same standard. Answers in theoretical pharmacognosy showed a sound grip of the subject.

In place of Mr. Perrins, who has retired, the Council appointed Mr. Henry Stout, Ph.C. (chairman, Scottish board of examiners of the Pharmaceutical Society of Great Britain), examiner in pharmacognosy, pharmacognosy and forensic pharmacy.

Certificates of apprenticeship were granted to James O. Beggs, Doagh; John G. Hutchinson, Dunmurry; and Michael Gerard O'Hagan, Draperstown.

THE PRESIDENT, VICE-PRESIDENT and SECRETARY reported on their visit to London on February 13 to confer with officials of the Pharmaceutical Society of Great Britain. At that conference the subjects discussed had been the proposed formation of a Poisons Board in Northern Ireland, the working of the Statutory Committee, formulation of a code of ethical conduct, educational standards for students, and the position of bodies corporate in Northern Ireland. After discussion, it was decided that those matters should be referred to the appropriate committees for further consideration with a view to putting forward proposals to amend the law, if necessary, when new legislation was introduced to set up a Poisons Board as proposed by the Ministry of Home Affairs. It was agreed, on the motion of MR. MCGREGOR, seconded by MR. W. H. BOYD, to inform the Ministry that the Council was in favour of a Poisons Board composed solely of representatives of the Society and of the medical faculty of Queen's University, Belfast. PROFESSOR MAYRS indicated that that was also the view of the Faculty.

Registered Druggists' Deputation

A deputation consisting of Messrs. J. J. Hannawin, W. Wright, H. G. Kennedy, A. W. J. Futter, R. Harbinson, R. S. Adair, H. Singleton and H. Nelson was received by the Council. Messrs. Hannawin, Futter and Adair outlined the difficulties confronting the Registered Druggists since the introduction of the Health Services Act (Northern Ireland), 1948, and asked the Council if measures could be introduced to permit Registered Druggists to play a full part in providing services under the new scheme. It was agreed to refer the matter to the Law and Education Committees.

ORGANIC PHOSPHORUS INSECTICIDES

Their toxicity to man: A letter from the Medical Research Council's
Department for Research in Industrial Medicine

SIR,—Reports from the United States of America of deaths and cases of poisoning of workers engaged in the manufacture, formulation and use of the organic phosphorus insecticides emphasise the extremely poisonous nature of these substances. They are from three to five times as toxic as nicotine. The use of parathion (diethyl-para-nitrophenylthiophosphate), HETP (hexaethyltetraphosphate) and TEPP (tetraethylpyrophosphate) has been less extensive in Great Britain than in other countries in the past two years, but in the coming months all these insecticides will be readily available for the control of insect pests in greenhouses, orchards and fields. Although a few cases of poisoning have been reported in Great Britain up to the present time, casualties will undoubtedly occur unless strict precautions are taken by all who handle these substances, and unless atropine is available for immediate use.

Handling Dangers

The insecticides are supplied for the user in liquid preparations and, in the case of parathion, in wettable powders and dusts. All preparations readily penetrate the skin and absorption may occur in this way or from inhalation or ingestion. HETP and TEPP hydrolyse rapidly in water or alkaline solutions. Danger of poisoning from these two substances is most likely to occur when the concentrated materials are handled in manufacture or in mixing with suitable wetting agents. Parathion is more stable, and cases of poisoning have occurred in agricultural workers in the United States of America. In California forty-six members of a group of ninety men employed picking pears from trees which had been sprayed with parathion ten days previously developed symptoms. All these men recovered completely, but sixteen of them were seriously ill and required treatment in hospital. A senior laboratory technician of the University of California Citrus Experimental Station died after spraying an orchard with parathion for approximately six hours. He was aware of the risks, had had experience in handling the compound, wore protective overalls, cap, boots and gloves, and had not been exposed to that or any similar insecticide for three days before the accident. The symptoms were headache, giddiness, nausea and vomiting. He was given

a bath and treated with oxygen but no atropine was used. Death occurred five hours after the onset of headache. Inquiry showed that it was unlikely that he was hypersensitive to organic phosphorus compounds. Three deaths have occurred in men handling concentrated parathion in manufacture and compounding. A girl repacked damaged bags of 15 per cent. wettable powder for several hours, and later developed symptoms of parathion poisoning from which she almost died. She wore a respirator at her work, but there was no exhaust ventilation. Giddiness and headache, aggravated by smoking or eating, are the commonest early symptoms of parathion poisoning. The pupils are usually constricted to pin-point size. Later symptoms include cramp-like abdominal pain accompanied by nausea, vomiting and diarrhoea. Muscular twitching, coma, convulsions and pulmonary oedema follow in severe cases. Death may occur an hour or two after the onset of symptoms. Atropine is the antidote to parathion. Large doses (up to gr. 130 hourly) must be given. For pulmonary oedema oxygen should be administered early and under slight pressure to overcome bronchial spasm. Where fibrillary twitching of muscles affects particularly the diaphragm, artificial respiration is necessary to save life.

Preventive Measures

In factories where parathion is manufactured or formulated for distribution to users, measures to prevent poisoning can be successfully applied. These should include conditions which assure its absence from the atmosphere. Protective clothing should be worn, and all clothes, including underwear, laundered after one day's wear. Respirators should be at hand for use in emergency. In the field it is more difficult to ensure adequate protection for individual workmen. In addition to the protective clothing recommended for use in factories, respirators must be worn during dusting and during the diluting of wettable powders containing parathion. Prompt recognition and treatment of early symptoms is essential if fatal accidents and cases of severe poisoning are to be avoided.

Yours faithfully,

P. LESLEY BIDSTRUP,
DONALD HUNTER.

London Hospital, London, E.1.

CORRESPONDENCE

Ordering Tax-free Packs

SIR,—Despite official publicity given to the conditions governing the ordering by retail chemists of tax-free dispensing packs, and despite notices, such as appeared in this company's advertisement of February 11, we and, no doubt, other houses continue to receive orders for bulk sizes without any indication that dispensing or tax-free packs are required. To write and ascertain, or get confirmation of, what is actually intended takes time, and occasionally causes annoyance to the chemist, who may be urgently awaiting delivery. It occurs to us that it might be opportune for you to remind chemists that orders, whether written or oral, should clearly stipulate that "dispensing" or "tax-free" packs are required.

ANGLO-FRENCH DRUG CO., LTD.
London, W.C.1.

Dangerous Drugs in Ampoules

SIR,—In your article on "Dangerous Drugs in Ampoules" (*C. & D.*, February 25, p. 245), you state "the answer to the overage problem is . . . a simple matter." In practice, your solution would cause endless trouble. The supplier is only entitled to supply the exact quantity ordered by the doctor. If every manufacturer adopted your suggestion it would be a long time before the medical profession remembered to order the total quantity, and if the practice were not universal the doctor would not have a chance, and a large proportion of prescriptions and orders would have to be returned for alteration.

E. HAROLD BUTLER, *Director*,
Leicester. E. H. BUTLER & SON, LTD.

SIR,—Your leading article on D.D. ampoules in last week's *C. & D.* omits any reference to the real difficulty in which the dispensing chemist is placed by a pedantic insistence upon observing the letter of the law concerning Dangerous Drugs in ampoules. It is perfectly easy, as you say, for the manufacturer to label his ampoules so as to show their full content, but the trouble arises when a doctor orders, for example, six ampoules of morphine sulphate, gr. $\frac{1}{4}$. The chemist is thus placed in a difficult position. Such prescriptions are often urgent, but if he considers that humanity comes before the jots and tittles of the law and dispenses, without delay,

ampoules containing gr. $11/40$, he is supplying more of a Dangerous Drug than his authorisation warrants, and is in danger of prosecution. If he sends the patient back to the doctor to get the prescription altered he is (a) delaying treatment; (b) arousing doubt and mistrust in the mind of the patient; and (c) annoying the doctor, and who can really blame the busy practitioner at being annoyed by such finicky details? He has already enough regulations and form-fillings to observe. So also, of course, has the chemist. What is needed is a general authorisation for a chemist to dispense in sealed ampoule quantities exceeding by not more than 10 per cent. the nominal amount of Dangerous Drug ordered on a prescription. In the meantime, this company has prepared a stock letter for sending out to prescribe when necessary, suggesting that "to interpret your wishes correctly, to observe the best interests of the patient, and to avoid infringing any of the Dangerous Drug Regulations or Poisons Rules," the full quantity of drug needed to cover the additional 10 per cent. commonly included in the ampoule should be specified.

Burley Hill, R. W. GILLHAM,
Leeds, 4 *Pharmacy Superintendent*
TIMOTHY WHITES & TAYLORS, LTD.

[Our correspondent's circular to doctors is to be commended as a method of dealing with extemporaneously made ampoules. For the reasons stated in our editorial any suggestion for a general authorisation to dispense an "overage" of 10 per cent. is bound to be unacceptable to the Home Office if it fails to account for the full amount of Dangerous Drugs used. Our editorial was concerned more particularly with ampoules issued by manufacturers, and the practicability of the method we recommended is attested by the fact that it is practised by at least one manufacturer.—EDITOR.]

Pricing Staffs

SIR,—I was most interested in the report of the Joint Pricing Committee in your issue of February 25 (p. 242), which stressed the difficulty of recruiting trainee pricers. Having had twenty years' experience in pricing drugs, ethical proprietary and sundries, and in costing pharmaceutical preparations and prescriptions, with large wholesale and manufacturing chemist, I applied for the posts advertised

and also offered my services to the various bureaux in the London area. On one occasion only was I even favoured with the courtesy of a reply, which informed me that the post had been filled. Apparently the others were satisfied with the effort at their disposal and too busy to enter into correspondence. The Committee would find, if they examined the conditions in the trade, that there are quite a number of highly skilled personnel qualified to expedite the work on hand, and so that there is a feeling that a pharmaceutical qualification is preferred to a pharmaceutical training with commercial experience. I may add that I am not alone in my experiences as related above. The Committee seems to have been more occupied with finding excuses for the conditions that prevail; it has no recommendations for bringing the work up to date. Merely, having accepted the responsibility of pricing the prescriptions, it is up to them to see that it is adequately performed. I wonder what would happen to manufacturer or wholesaler if his costs and accounts were six months behind.

PRICER.

Thin End of a Wedge?

SIR,—There seems to have been no outcry against the method of giving effect to price reductions in toilet articles on March 1. Perhaps pharmacists are resigned to it, but I think they should regard it as a pointer. I think it is no secret that, in official circles, the distributive trades are regarded as most wasteful, economically and in man-power. In that attitude lies one of the reasons for the census distribution. Secondly, devaluation has increased, and is still increasing, the costs of raw materials. Wages are high and cannot be forced down. The Government, to peg the cost of living and to prevent a spiral of inflation, will keep prices down. It follows that profit margins will be cut, and the cut in toilet prices is the first step. Under these conditions it seems that only the most efficient businesses will eventually survive. Should an essential service be in jeopardy, it will be the place of the Government to take it over or nationalise it. At present, if a business is working on very narrow margins and is subject to price controls, etc., it is to all intents and purposes already virtually nationalised. Pharmacists are driven to become more than ever dependent on the National Health Service.

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NEW BOOKS

International Mercantile Diary and Year-book, 1950.—9 $\frac{3}{4}$ x 7 $\frac{1}{4}$ in. Pp. 284 and diary and fourteen appendices. 30s. Syren & Shipping, Ltd., 26 Billiter Street, London, E.C.3. (Price includes subscription to "The Merchant Shipper" monthly.) Now in its thirty-fourth year, the Diary contains 315 pages of information of everyday usefulness to exporters and shippers, not the least valuable item at the present juncture being summaries of the requirements of the principal countries for goods.

Bennett's Materia Medica and Pharmacy for Medical Students.—R. R. Bennett, B.Sc., F.R.I.C., revised by H. G. Rolfe, B.Sc., F.R.I.C. (chief pharmacist, The British Drug Houses, Ltd.). Fifth edition. 6 $\frac{3}{4}$ x 4 in. Pp. 276. 16s. H. K. Lewis & Co., Ltd., 136 Gower Street, London, W.C.1. Though the intention of the original author, Mr. Bennett, of presenting a concise account of the drugs, chemicals and preparations of the British Pharmacopœia still holds, revision to conform to the 1948 edition has involved considerable alterations and additions. The chief pharmaceutical preparations of the Pharmacopœia are grouped into classes (central stimulants, anæsthetics, narcotics, etc.), and their source, description, uses and doses are summarised. General notes on dosage are followed by alphabetical and ascending-minimum-dose tables. An appendix deals with incompatibilities, and pharmaceutical terms are defined.

Tablet Making.—Arthur Little and K. A. Mitchell. 8 $\frac{1}{2}$ x 5 $\frac{1}{2}$ in. Pp. 121. 15s. Northern Publishing Co., Ltd., 37 Victoria Street, Liverpool, 1. Many requests to the Editor for information on the subject have proved the existence of that cliché condition the "long-felt want." As a guide to the fundamentals of tablet-making, this book, written by persons of obvious practical experience, and illustrated with numerous half-tone pictures, could hardly be bettered. It tells what the pharmacist, not proposing to plunge into large-scale manufacture but anxious to have background knowledge of the process and perhaps the "know-how" to turn out small batches on a hand-machine, most wants to know—when (and what degree of) granulation is called for, causes of "binding," choice of excipient, and the like. A number of formulas, put forward with a cautionary notice about legal requirements, translate the principles into practice.

TRADE REPORT

Spot quotations for pharmaceutical chemicals represent the prices for wholesale quantities of standard quality. Prices of crude drugs and essential oils vary as to brand or grade.

28 Essex Street, W.C.2, Mar. 1

DEMAND for PHARMACEUTICAL and FINE CHEMICALS has been on a good scale during the past week. ASPIRIN and SALICYLATES, in particular, have been moving in substantial quantities. From today makers have advanced prices of CAFFEINE—the ALKALOID is dearer by one shilling per lb., and the SALTS by sixpence per lb. Price reductions for PENICILLIN (crystalline penicillin and the calcium salt) took effect on February 27. BENZOCAINE is also cheaper. Supplies of AGAR from Japan are expected to arrive about the second week in March; meanwhile, a good inquiry has been received in London from the Continent for this article but there is little available for export. BUCHU is a dull market and spot quotations are slightly lower. Supplies of ERGOT on the London market are still short, with importers disinclined to bring in Portuguese material at current prices. IPECACUANHA continues quiet; the forward market for Nicaraguan is slightly easier. PAPAIN is tending firmer on the spot with higher prices asked from East Africa. Parcels of Chinese RHUBARB, now afloat, are expected to arrive on March 12; reports from China indicate that all available supplies have now been sold. SENECA is easier on the spot. There has been a substantial demand for No. 3 Tinnevely SENNA LEAVES. MENTHOL is quiet, with forward prices lower. There have been few changes in prices of ESSENTIAL OILS and the market, generally, has been quiet and steady. Little improvement is reported in supplies of GERANIUM, PALMAROSA and PATCHOULI. Madagascar CLOVE is dearer on the spot; reports from origin suggest that a recent hurricane seriously damaged the clove crop. More offers are being made from China of PEPPERMINT (*M. arvensis*) and the spot market is easier. There have been some cheap offers of *M. piperita* oil from the Continent. Demand for ANISE has decreased.

U.S. Drug and Chemical Report

New York, February 24

PRINCIPAL feature of the FINE CHEMICALS market has been an increase of \$1 per gm. in the price of PROGESTERONE, U.S.P., which is now quoted at \$2.75 per gm. in 100-gm. lots. No further price movements have been reported in PENICILLIN but trade circles are of the opinion that reductions may be expected in the near future. The new Brazilian MENTHOL crop is estimated to be between 130 and 140 tons, which is 30 or 40 tons more than last year. Meanwhile, demand in the U.S. for menthol is very poor, partly because of the introduction of the ANTIHISTAMINES.

Demand for raw materials used in the preparation of antihistamines is now tending to settle down; the item chiefly affected is ANISALDEHYDE. The "Journal of Commerce," quoting Hong Kong reports, says that out of an expected production of 7,000 cases of menthol out of the last Chinese peppermint crop, only 4,000 cases were forthcoming. Out of this quantity 2,000 cases have been sold or contracted for, thus leaving only 2,000 cases available to meet world requirements until the next crop is cut and distilled in late August or early September. Demand for CRUDE DRUGS, SPICES and GUMS remains generally on the quiet side but there are many items in short supply and any increase in buying will undoubtedly be followed by substantial upward price movements. Price increases include PEPPER, CLOVE, and CELERY and CORIANDER SEEDS. STYRAX (U.S.P.) is cheaper by 15 cents per lb. New-crop BUCHU is not attracting much attention and it is thought that dealers may be prepared to accept lower prices. SENECA, TRAGACANTH and GUM ACACIA are quiet. RHUBARB, KAMALA, GALANGAL and ERGOT are in short supply. Demand for ESSENTIAL OILS is not great, though the general feeling among dealers is that business conditions will be good in the coming weeks. Réunion VETIVER is firmer at \$14.25 per lb. Madagascar CLOVE is dearer and supplies are short at origin.

Exchange Rates on London

Rates at the opening on Wednesday morning were:—

Centre	Quoted	Rate
*Alexandria	... Piastres to £	97½—97½
Amsterdam	... Florins to £	10.63—10.65
*Australia	... £A to £	125—125½
*Bombay	... Shillings to rupee	1/5½—1/6½
Brussels	... Francs to £	139.90—140.10
Copenhagen	... Kroner to £	19.32—19.36
Dutch East Indies	... Florins to £	10.63—10.65
Dutch West Indies	... Florins to £	5.27½—5.29
*Hong Kong	... Shillings to \$	1/2½—1/2¾
*Israel	... £I to £	99½—100½
*Karachi	... Shillings to rupee	2/1¾—2/1½
Lisbon	... Escudos to £	80.35—80.75
Manilla	... Peso to £	In suspense
Montreal	... Dollars to £	3.07½—3.08½
New York	... Dollars to £	2.79½—2.80½
*New Zealand	... £NZ to £	100½—101
Oslo	... Kroner to £	19.98—20.02
Paris	... Francs to £	979—981
Rio de Janeiro	... Cruzeiros to £	Braz. a/c
*Singapore	... Shillings to \$	2/4½—2/4¾
Stockholm	... Kronor to £	14.47—14.5½
*Teheran	... Rials to £	89.40—91.00
Zurich	... Francs to £	12.23—12.26

*Free market rates; remainder Bank of England fixed rates.

Pharmaceutical Chemicals

ACETANILIDE.—Crystals in 1-cwt. lots are now 2s. 1½d. per lb., and powder, 2s. 2½d. per lb.

AMIDOPYRIN.—French material (B.P.) is offered at from 34s. to 35s. per lb.

BENZOCAINE.—An easier market. Quotations for 28-lb. lots are now at 40s. per lb.

α-BROMISOVALERYLUREA.—Quotations are 41s. to 47s. 6d. per lb.

CAFFEINE.—Makers have increased home-trade prices, with effect from March 1. For 1-cwt. lots they are (per lb.) as follows:—**ALKALOID, B.P.**, 37s. 6d., and anhydrous, 39s.; **CITRATE, B.P.C.**, 21s. 6d.; **SODIUM BENZOATE, B.P.**, 23s. 6d.; **SODIUM SALICYLATE, B.P.C.**, 24s. 6d. **CAFFEINE** and **SODIUM IODIDE** is unchanged at 30s. per lb.

CRESOL.—Price of B.P. quality from distillers is 4s. 6d. per gall., ex sellers' remises.

EMETINE.—The **HYDROCHLORIDE** in 32-oz. lots is now 215s. per oz.; 16-oz., 17s. 6d.; 4-oz., 220s.; 1-oz., 227s. The **BISMUTH IODIDE** in 32-oz. lots is now 12s. per oz.; 16-oz., 113s. 6d.; 4-oz., 115s.; -oz., 116s. 6d. **PERIODIDE** is quoted at 90s. per oz. in 16-oz. lots; under 16 oz., 95s. per oz.

GLYCERIN, B.P.—Prices are steady. Current rates per cwt. are as follows:—

Contracts or spot lots of	Under 1 cwt.	1 cwt. and under 2½ cwt.	2½ cwt. and under 5 cwt.	5 cwt. and under 10 cwt.	10 cwt. and under 20 cwt.
Minimum deliveries off contract of	—	1 cwt.	1 cwt.	1 cwt.	2 cwt.
tins:	s. d.	s. d.	s. d.	s. d.	s. d.
1-lb. ..	156 6	152 0	151 0	148 0	147 0
5-lb. ..	153 6	149 0	148 6	145 6	144 6
5-lb. ..	150 6	147 0	146 0	143 0	142 0
drums:					
1-cwt. ..	—	136 0	135 0	132 0	131 0
1-cwt. ..	—	—	133 0	130 0	129 0
5-cwt. ..	—	—	—	129 6	128 6
5-cwt. ..	—	—	—	—	128 0

ton and under 5 tons (minimum deliveries off contract of 5 cwt.), 14-lb. tins, 43s.; 28-lb., 140s. 6d.; 56-lb., 138s.; 1-cwt. drums, 127s.; 2½-cwt., 125s.; 5-cwt., 24s. 6d.; 10-cwt., 124s. 5 ton and upwards (minimum deliveries off contract of 0-cwt.), 14-lb. tins, 141s. 6d.; 28-lb., 139s.; 5-lb., 136s. 6d.; 1-cwt. drums, 125s. 6d.; 1-cwt., 123s. 6d.; 5-cwt., 123s.; 10-cwt., 22s. 6d. Extra charges are levied for smaller deliveries, ex contract, from 6d. to s. per cwt., according to quantity. Refined pale straw industrial glycerin is 5s. per cwt. less than chemically pure. Terms of carriage and delivery paid. A discount of ½ per cent. is deducted if paid in one month, or on buyers' regular monthly payment in the month following delivery; after-

wards net. Tins and cases free (not returnable). Drums loaned and invoiced at sellers' current rates and credited in full if returned within four months, carriage forward and in good condition.

GLYCEROPHOSPHATES.—Makers' list prices per lb. are as follows: **CALCIUM SOLUBLE**, 10s. 6d.; **IRON SCALE**, 11s. 9d.; **ACID**, 20 per cent. (B.P.C.), 8s. 3d. **MAGNESIUM (INSOLUBLE)**, 10s.; **MAGNESIUM (SOLUBLE)**, 19s. 3d.; **MANGANESE**, 24s. 3d.; **POTASSIUM**, 50 per cent., 5s. 11d.; 75 per cent., 7s. 9d.; **SODIUM**, 10s. 9d.; 50 per cent., 4s. 7d.; 75 per cent., 5s. 8d. Quantities of 7 lb., 6d. per lb. less than above rates other quantities in proportion.

GUAIACOLS.—Liquid is quoted at from 14s. 6d. to 16s. 6d. per lb., and **CRYSTAL** and **CARBONATE**, 14s. to 15s., according to quantity.

LACTATES.—Current quotations are: **CALCIUM**, 2s. 2½d. to 2s. 6½d.; **CALCIUM SODIUM**, 3s. 5d. to 3s. 9d. per lb.; **LACTIC ACID, B.P.**, is 3s. 3d. per lb. in carboys, and 3s. 4½d. to 3s. 10d. in winchesters.

MAGNESIUM CARBONATE.—Heavy, B.P., in 1-cwt. lots is quoted at 131s., and light, B.P., at 115s. 10d. per cwt.

MAGNESIUM HYDROXIDE, B.P.C.—Makers' price for 1-cwt. lots is 2s. 11d. per lb.

METHYL SALICYLATE.—From February 1 prices are advanced by threepence per lb. New rates are as follows: **Winchesters**, 2s. 5½d. per lb.; 56-lb. lots in demijohns, 2s. 4d.; 1-cwt., in demijohns or carboys, 2s. 3½d.; 5-cwt., 2s. 3d.; net.

NICOTINIC ACID.—Quotations are about 40s. to 42s. per lb., as to quantity.

PHENAZONE.—Prices quoted for British-made and imported material range from 22s. 6d. to 25s. per lb.

PHENOBARBITONE.—Home-trade prices are unchanged at from 35s. per lb. upwards, according to quantity.

PHENOLPHTHALEIN.—1-cwt. lots are now 7s. 7d. per lb.; 28-lb., 7s. 7d.; 14-lb., 8s.; and 7-lb., 8s. 3d. per lb.

PHENYLACETIC ACID.—1-cwt. lots are now quoted at 5s. per lb.; smalls, up to 5s. 9d. per lb.

POTASSIUM NITRATE.—Makers quote 1-cwt. lots of B.P. quality as follows:—**Powder**, 87s. 6d.; **crystals**, 86s.; **granulated**, 85s. per cwt. Commercial quality is 81s. per cwt. Smaller quantities are 5s. per cwt. more than above rates.

POTASSIUM PERMANGANATE.—Home-trade rates, for B.P. grade (in 1-cwt. drums), are: 1 cwt., 1s. 7½d. per lb.; 5 cwt., 1s. 6½d.; 1 ton, 1s. 6d. **Technical** (in 1-cwt. drums) is 163s. per cwt.; 5 cwt., 154s. 6d. per cwt.; 1 ton, 149s. 6d. per cwt. Prices are net; carriage paid nearest railway station; drums extra and returnable.

VANILLIN.—Rates per lb. are: 5-cwt. lots, 26s.; 1-cwt., 26s. 3d.; 56-lb., 26s. 6d.; smaller quantities, 26s. 9d.

Crude Drugs

ACONITE. — Business has been slow. Indian is quoted at 260s. per cwt., spot, *napellus* is 3s. 6d. per lb., spot, duty paid.

AGAR.—Supplies of Kobé No. 1 arriving shortly are quoted at 9s. 3d. to 9s. 6d. per lb., duty paid; Kobé No. 1, slightly off-quality, is offered on the spot at from 13s. 6d. to 14s. per lb., duty paid.

ALOES.—Cape is offered at from 115s. to 117s. 6d. per cwt., spot. Curaçao is quoted at from 220s. to 225s. per cwt., spot; forward, 215s., c.i.f.

ARECA NUTS. — Steady. Spot offers are from 47s. 6d. to 60s. per cwt.

ARNICA FLOWERS.—Supplies are available at 1s. 8d. per lb., spot, duty paid.

ASAFETIDA.—Persian block on spot is offering at prices from £14 10s. to £24 per cwt., as to grade.

BALSAMS.—*Canada* on the spot is firm at 18s. per lb. *Pará Copaiba* on the spot is 8s. per lb., duty paid; 7s. 6d. in bond. *San Salvador Peru* is at from 6s. 6d. to 7s. per lb., duty paid. *Tolu* is steady at from 19s. to 19s. 3d. per lb., spot; for shipment, 18s. 9d. to 19s., c.i.f., quoted.

BENZOIN.—Sumatra block on the spot is quoted at from £18 5s. to £20 per cwt.

BISMUTH. — Basic rate for metal is 14s. 6d. per lb., in minimum 5-cwt. lots.

BLACK HAW. — Steady. Root bark is offering at 6s. per lb., duty paid, spot London; tree bark, 3s. 3d., duty paid.

BUCHU.—Short rounds are from 3s. 3d. per lb. on the spot; new-crop for shipment, 3s. 1d., c.i.f. Ovals are quoted at 3s. per lb., spot.

CALUMBA.—Natural unwashed sorts are quoted at from 75s. to 80s. per cwt., spot.

CAMPHOR. — Chinese tablets are quoted at from 5s. 6d. per lb. for $\frac{1}{4}$ -oz. and from 5s. 3d. for $\frac{1}{2}$ -oz.; $2\frac{1}{2}$ -lb. slabs are from 5s. to 5s. 3d. per lb.; all duty paid, spot London. Refined powder (B.P.) is offered at from 4s. 6d. to 5s., duty paid; and B.B. grade from 4s. per lb., duty paid, spot. B.P. powder, affloat, is quoted at from 3s. 6d. to 3s. 9d., landed, duty paid.

CANTHARIDES. — Quiet. Chinese on spot is quoted at from about 6s. 6d. per lb.

CARDAMOMS.—Green Aleppy on the spot, offered at 18s. per lb.; split Aleppy seeds, 23s., spot.

CASCARA SAGRADA.—Quotations for 1949 peel are at from 285s. per cwt., duty paid, spot; forward, 257s. 6d., c.i.f., quoted.

CINCHONA. — Congo *succinbra* bark (T.A., 5.59; S.Q., 2.39; cinchonidine, 0.97 per cent.) is quoted at 1s. 10d. per lb., spot. A parcel of Java *ledgeriana* (T.A., 8.61; S.Q., 6.93; cinchonidine, 0.92 per cent.) is offered at 2s. 4d. per lb., spot. Tanganyika hybrid (T.A., 5.88; S.Q., 2.95; cinchonidine, 0.57 per cent.) is 1s. 5d. per lb., spot.

CLOVES.—Steady. Zanzibar on the spot is from 1s. 5 $\frac{1}{4}$ d. per lb.; affloat, 1s. 5d.; February-March shipment, 1s. 5d., c.i.f. Madagascar in bond is quoted at 1s. 5 $\frac{1}{4}$ d.

COCHINEAL.—Silver grey is nominal at 5s. per lb., spot; black, 5s. 6d.

COLCHICUM. — Corms on spot are nominally 3s. 6d. to 6s. per lb., as to test; seeds, 11s. per lb., spot, duty paid.

COLOCYNTH.—White pulp (B.P.) on spot is 2s. per lb.; to arrive, 1s. 9d., landed.

DRAGONS BLOOD.—Singapore reboiled No. 1, £60 per cwt., spot; No. 2, £47 10s. per cwt.

ERGOT.—Russian is quoted at 25s. per lb., spot; Hungarian, 23s. 6d. per lb.

GINGER.—Quiet. African on the spot is offered at 340s. per cwt. February-April shipment, 290s., c.i.f., sellers. Jamaican new-crop No. 3, is quoted at 360s. per cwt. spot; February-April, 310s., c.i.f.

GUM ACACIA.—Quiet. Kordofan cleaned sorts on the spot, offered at 87s. per cwt. spot London or Liverpool; February-March shipment, 81s., c.i.f. Bleached gum 145s., spot. Talha is 50s. per cwt., on spot; shipment, 48s., c.i.f.

HONEY.—Prices are slightly lower for manufacturing grades; good-quality Australian is quoted as follows:—1-cwt., 90s. 5-cwt., 86s.; 10-cwt., 83s.; 1-ton, 80s. per cwt., carriage paid in U.K., packed in 60-lb. drums. Prices of refined honey are unchanged: In 56-lb. tins, 100s.; 28-lb. 115s.; cases of four 7-lb., 130s., carriage paid.

IPECACUANHA. — The market continues quiet. Nicaraguan on the spot is offered at from 42s. to 42s. 6d. per lb.; April-May shipment, 37s. to 37s. 6d., c.i.f. Colombia is quoted at 35s. per lb., spot; forward 30s., c.i.f.

JALAP.—Vera Cruz on the spot is offered at from 4s. to 5s. per lb., as to test Brazilian, 2s. 9d., nominal.

KOLA NUTS.—African quarters are quoted at 3d. per lb., and halves from 4 $\frac{1}{2}$ d. to 5d. per lb., spot.

LIQUORICE.—Anatolian natural root on the spot is quoted at from 50s. to 52s. 6d. per cwt. Turkish black juice is quoted at from 160s. to 230s., duty paid, according to holder; Turkish stick is from 300s. duty paid. Italian stick is from 285s. to 475s. per cwt., duty paid, for druggist grades.

MENTHOL.—Brazil is quoted at from 85s. to 86s. per lb., spot, duty paid; in bond 82s. 6d.; April-May shipment, 68s., c.i.f. quoted. Chinese, 85s., spot, duty paid.

MERCURY. — Spot quotations are from £18 10s. to £18 15s. per flask, ex warehouse; for shipment, £18 6s. 6d., c.i.f.

PAPAIN. — East African white, on the spot, is from 15s. 6d. to 16s. 3d. per lb. Ceylon brown, from 11s. to 12s. per lb. spot.

SARSAPARILLA.—Jamaican native red, on the spot, is quoted at 2s. 2d. to 2s. 3d. per lb. Jamaican grey, 3s. 6d., spot.

SEEDS.—The ANISE market is firm. Turkish is quoted at 155s. per cwt., in bond, and 165s. per cwt., duty paid; Egyptian, 150s. per cwt., in bond; all spot London. CARAWAY.—Dutch, on spot, remains quiet at 122s. 6d. per cwt., duty paid in London. CELERY.—Less inquiry. French is 250s. per cwt., duty paid, London; and Indian, 1s. 10d. per lb., spot London. CORIANDER.—Prices are rising. Morocco reports that only about thirty tons are available for shipment—108s. per cwt. quoted, c.i.f. On the spot (London) quotations are 110s. per cwt., duty paid, and 105s. per cwt., in bond. CUMIN.—Market unchanged. Morocco, spot London or Liverpool, is 165s. per cwt., in bond, and 180s. per cwt., duty paid. Indian is 160s. per cwt., spot London. DILL.—Market quiet. Indian is 62s. 6d. per cwt., spot London, and 57s. 6d. per cwt., c.i.f. FENNEL.—Market unchanged. Indian is 75s. per cwt., spot London; 67s. 6d. per cwt., c.i.f., quoted for shipment. FENUGREEK.—Market quiet. Morocco is 57s. 6d. per cwt., duty paid in London, and 55s. per cwt., duty paid, ex store Liverpool. Indian is 62s. 6d. per cwt., spot London.

SENEGA.—Quiet. On the spot there are sellers at 10s. 9d. per lb.; for shipment, 11s., c.i.f., quoted.

SENA.—Tinnevely leaves, spot, No. 1, from 9½d. to 11d. per lb.; No. 2, 7½d. to 8d.; No. 3, 6½d. to 6¾d. per lb.; Tinnevely pods, selected, nominal; ordinary hand-picked, 8½d. to 11½d.; manufacturing, 5½d. to 6d. Alexandrian pods, hand-picked, spot, from 4s. 9d. to 5s. 9d. per lb., nominal; medium grades are offered at from 2s. 6d. to 3s. per lb.; manufacturing, 8d.

SHELLAC.—F.O.T.N., pure, is 315s. per cwt., spot; F.O. Standard 1, 325s.; fine orange, 345s. to 390s.

VALERIAN.—Spot offers are from 195s. to 210s. per cwt. for Belgian root.

WAXES.—There are sellers of Dar-es-Salaam BEES' on the spot at 400s. per cwt.; March-April shipment 385s., c.i.f. Benguela is quoted at 370s. per cwt., duty paid; shipment, 335s., c.i.f. Abyssinian is offered at 370s., spot, duty paid; forward, 335s., c.i.f.; Sudanese is available at the same prices. Madagascar No. 2 is quoted at 345s., duty paid (in bond 315s.); for shipment, 307s. 6d., c.i.f. CANDELLILLA.—On the spot and for delivery, 425s. per cwt., quoted. CARNAUBA.—Prime yellow, 900s. per cwt., spot; forward, 880s., c.i.f. Fatty grey, 660s. per cwt., spot; forward, 640s., c.i.f. MONTAN.—Reibek is 175s. per cwt., spot; for shipment, 155s., c.i.f. CURCURI.—0.5 per cent. impurities is quoted at 660s. per cwt., spot; 1.5 per cent., 650s. spot; 3.5 per cent., 640s. per cwt., on the spot.

Essential and Expressed Oils

ALMOND.—English-expressed sweet oil (B.P.) is from 4s. 6d. per lb.; Spanish is quoted at from 3s. 3d. to 4s. 6d., as to grade. Bitter, on the spot, is from 30s. to 60s. per lb., as to grade.

ANISE.—Quiet. Spot quotations are from 11s. 3d. per lb. for drums; for shipment, 11s., c.i.f.

BAY.—West Indian on spot is quoted at from 6s. 6d. to 7s. 6d. per lb.

BERGAMOT.—A firmer market. Spot offers are from 34s. per lb.; forward, 32s., c.i.f.

CINNAMON.—B.P. oil on the spot is quoted at prices ranging from 50s. to 100s. per lb. Bark oil is offered at from 14s. to 20s. per oz., as to quality; leaf oil is available at 8s. per lb.

CITRONELLA.—Spot quotations for Ceylon are at from 8s. to 8s. 3d.; February-March shipment, 8s., c.i.f., quoted. Java oil is quoted at 20s. per lb., spot, duty paid.

CLOVE.—English-distilled bud oil is offered at from 13s. 9d. to 14s. 6d. per lb., according to quantity; Madagascar is from 8s. 6d. per lb. and Zanzibar from 9s. 3d., spot.

FENNEL.—Dutch sweet is quoted at from 17s. to 17s. 6d. per lb., duty paid; for shipment, 15s. 4d., c.i.f. Spanish is offered at from 19s. to 20s. per lb., spot, duty paid.

LEMON.—Sicilian hand-pressed (4 per cent. citral) on the spot is quoted at 24s. per lb.; for shipment, 23s. to 24s., c.i.f.

LEMONGRASS.—Spot quotations are from 15s. 6d. to 17s. per lb.; for shipment, 15s. 3d., c.i.f.

PALMAROSA.—Supplies on the spot are quoted at about 57s. 6d. per lb.; for shipment, 53s. 6d., c.i.f.

PEPPERMINT.—English-distilled is offered at from 200s. to 225s. per lb. Chinese (dementholated *M. arvensis*) is quoted at from 40s. to 41s., c.i.f., and from 43s. to 44s. per lb., spot. Italian *piperita*, for shipment, 65s. per lb., c.i.f.; on the spot, from 67s. 6d. per lb.

The National Edible Oil Distributors' Federation rates, for all areas except Devon and Cornwall, are as follows: GROUNDNUT, MAIZE, COTTONSEED, SUNFLOWER-SEED, 127s. 6d. per cwt., 10s. 5d. per imperial gall., 10s. 3d. per 9-lb.-gall.; PALM-KERNEL, 126s. 6d. per cwt., 10s. 4d. per imperial gall., 10s. 2d. per 9-lb.-gall. The prices are for oils packed in cans. The price of oil in barrels is as follows: On loan, 1s. per cwt. below the ½-cwt. can price; free, 3s. per cwt. below the ½-cwt. can price, plus the cost of container. Devon and Cornwall rates for oils are 2s. per cwt. or twopence per gall. more than those for other areas, and the cwt. prices are based on ½-cwt. loan taper cans.

COMING EVENTS

Monday, March 6

WEST KENT BRANCH, PHARMACEUTICAL SOCIETY, Central Library, Beckenham, at 8 p.m. Film show "The Treatment of Varicose Veins and their Complications," presented by Mr. E. R. Harrison.

SOUTHGATE AND WOOD GREEN DIVISION, NORTH LONDON PHARMACEUTICAL ASSOCIATION, Windsor Café, 398 Green Lanes, London N.13, at 7.30 p.m. Dr. Clunie Harvey (medical officer of health for Southgate) on "Food Poisoning."

Tuesday, March 7

ABERDARE AND MERTHYR BRANCH, PHARMACEUTICAL SOCIETY, Fairams Café, Aberdare, at 7.30 p.m. Annual meeting.

CHICHESTER, BOGNOR REGIS BRANCH, PHARMACEUTICAL SOCIETY, Polly Anne Café (next to bus station), High Street, Bognor Regis, at 7.30 p.m. Film Show, "Birth of a Drug," presented by Mr. B. C. Bryant, Ph.C.

NORTH LONDON PHARMACEUTICAL ASSOCIATION, Lecture Hall, Wellcome Research Institution, Euston Road, London, N.W.1, at 7.45 p.m. Mr. W. R. Roberts, Barrister-at-Law, on "The Work of the Society's Law Department."

SOUTH-EAST METROPOLITAN BRANCH, PHARMACEUTICAL SOCIETY, and SOUTH-EAST LONDON CHEMISTS' ASSOCIATION, The Grove Tavern, 26 Camberwell Grove, London, S.E.5, at 7.30 p.m. Miss D. Murgatroyd on "Pricing Problems."

Wednesday, March 8

CHESTER BRANCH, PHARMACEUTICAL SOCIETY, Blossoms Hotel, Chester, at 7.15 p.m. Annual dinner. Ticket 15s.

DURHAM COUNTY BRANCH, PHARMACEUTICAL SOCIETY, Three Tuns, New Elvet, Durham City, at 7 p.m. Annual dinner. Ticket 10s. Informal dress.

GLASGOW AND SOUTH-WESTERN SCOTTISH BRANCH, PHARMACEUTICAL SOCIETY, Hall of the Institute of Accountants and Actuaries, 220 St. Vincent Street, Glasgow, at 7.30 p.m. Mr. G. R. Milne, Ph.C. (deputy director, Glasgow and West of Scotland Blood Transfusion Service) on "Blood Transfusion."

HARROW BRANCH, PHARMACEUTICAL SOCIETY, Granville Restaurant, College Road, Harrow, at 6.30 p.m. Social evening.

LIVERPOOL CHEMISTS' ASSOCIATION, Adelphi Hotel, Liverpool. Annual dinner.

ROMFORD BRANCH, PHARMACEUTICAL SOCIETY, Queen's Hotel, Grays, at 7.30 p.m. Mr. S. F. Woodward, Ph.C., on "Vitamin B12."

THAMES VALLEY PHARMACEUTICAL ASSOCIATION, Restaurant Frascati, Oxford Street, London, W.1, at 6.30 for 7 p.m. Dinner and dance. Dress optional.

WEST GLAMORGAN BRANCH, PHARMACEUTICAL SOCIETY, Mackwood Hotel, Swansea, at 8 p.m. Mr. R. D. Andrews, Ph.D., B.Sc., on "Antibiotics."

Thursday, March 9

PHARMACEUTICAL SOCIETY, 17 Bloomsbury Square, London, W.C.1, at 7.30 p.m. Mr. J. O. Irwin, M.A., D.Sc., Sc.D. (statistical research unit, Medical Research Council) on "Statistics and Biological Assay."

LONDON CHEMISTS' GOLFING SOCIETY, Trocadero Restaurant, Piccadilly, at 6.30 for 7 p.m. Dinner and dance.

BRISTOL BRANCH, PHARMACEUTICAL SOCIETY, Broom, Guildhall, Small Street, Bristol, at p.m. Lecture by Professor H. S. Heller (Lecturer of Pharmacology, Bristol University).

HARROGATE BRANCH, PHARMACEUTICAL SOCIETY, Fuller's Café, Harrogate, at 7.30 p.m. E. R. Mercer, Durham University, on "Medical and Industrial Applications of Atomic Energy."

MANCHESTER PHARMACEUTICAL ASSOCIATION, Jubilee Branch, Council Chamber, Houldsworth Institute, at 7.45 p.m. Debate on "Pharmaceutical Power."

SOMERSET PHARMACEUTICAL ASSOCIATION, Rialto Restaurant, Weston-super-Mare, at 7.30 p.m. County dinner and dance. Ticket 21s. (student 15s.).

WALLASEY PHARMACEUTICAL ASSOCIATION, Hotel Victoria, New Brighton, at 8 p.m. Mr. E. Brocklehurst, M.P.S., on "Progress in Pharmacy."

ABERDEEN BRANCH, CHEMICAL SOCIETY, Chemistry Department, Marischal College, Aberdeen, at 7.30 p.m. Professor H. B. Nisbet on "Chemistry of Anaesthetics."

TRADE MARKS

(From "The Trade Marks Journal," February)

For medical and surgical plasters and bandages consisting of or containing gutta percha; disinfectants (5).—"DUOPERCHA"; by Gebr. Trey Aktiengesellschaft, Zurich; B672,311.

For anaesthetics, insecticides and sterilising preparations (5).—"CATAREX"; by Petrochemical Ltd., London, W.1; 677,106.

For all goods (5).—"ABUNOXIN"; by Imperial Chemical (Pharmaceuticals), Ltd., London, 677,541. "FIBRON"; by Reynolds & Branson, Leeds; B682,847. "SUXIGEN"; by The British Drug Houses, Ltd., London, N.1; 683,527.

For pharmaceutical preparations (5).—"J. MURRAY ALERTOGEN" (in distinctive lettering) J. C. Murray, Lossiemouth; 681,432. "EFFICI" by Fletcher, Fletcher & Co., Ltd., London, B681,638. "PREGNOPAX"; by Clinical Products Ltd., Richmond; 683,626.

For parasiticides and insect-destroying preparations (5).—"LORANEX"; by Imperial Chemical (Pharmaceuticals), Ltd., London, S.W.1; 681,432.

For medicated confectionery (5).—"SUBER" by Raoul Frenkel, London, W.2; 681,997.

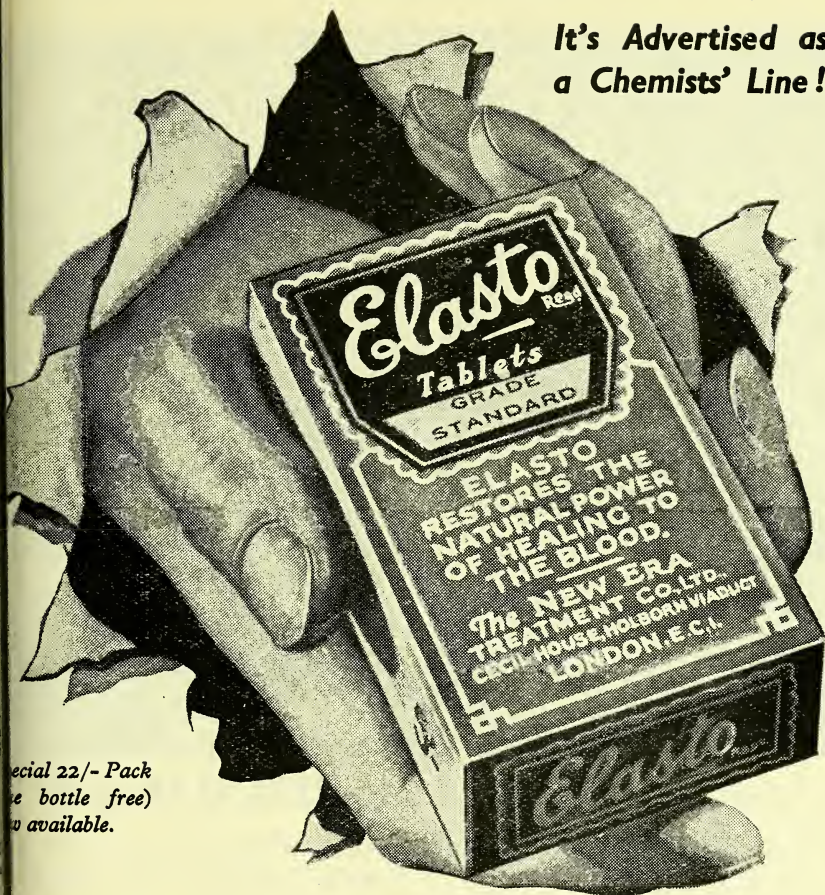
For preparations for destroying woodworms (5).—"DOLSTAN"; by Stanley Wade, Swansea; 683,527.

For scientific and photographic apparatus and instruments (9).—"REMPLOY" and device of tree; by Remploy Ltd., London, S.W.1; 674,106.

For non-medicated toilet paper (16).—"WOMAN" Ancient Egypt bordered by the words "ANCIENT LORE TO SCIENTIFIC RESEARCH" Southdown Hygienics, Ltd., Cambridge; 683,527. For combs and sponges (21).—"OSCAR" Osborne, Garrett & Co., Ltd., London, 683,055.

For perfume sprayers and toilet-powder sprayers (21).—"AROMIST"; by Industrial Humid Ltd., Leicester; 683,042.

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Bottle of	20	8d.	1/-
" "	100	2/-	3/-
" "	500	8/4	12/6
" "	1000	16/-	24/-

Tablets containing 50 mg.

Bottle of	20	1/-	1/6
" "	100	3/4	5/-
" "	500	14/6	21/9
" "	1000	28/-	42/-

Tablets containing 200 mg.

Bottle of	20	2/10	4/3
" "	100	11/4	17/-
" "	500	51/-	76/6
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press advertising, backed by attractive show material, will ensure a big year for Hiltone. The famous slogan — “As light as you like . . . and no lighter” — will be seen — and acted on — by millions of readers. Stock Hiltone, display it — you'll sell it. Show material sent on request.

HILTONE

AS LIGHT AS YOU LIKE . . . AND NO LIGHTER
COUNTY PERFUMERY CO. LTD., STANMORE, MIDDLESEX

FROM 1st APRIL 1950
New packs - new prices

● New and improved plant recently brought into operation, enables us to issue 'Dexedrine' Tablets from 1st April 1950, in these new packs at revised prices.

'Dexedrine' Tablets are exempt from Purchase Tax and bear the monogram SKF; each tablet contains 5 mg. dextro-amphetamine sulphate.



Containers of 100 Tablets at 78/9 doz.

(Retail price 8/9 each)

Containers of 1,000 Tablets at 60/- each

Prices to hospitals on application.



'Dexedrine' tablets



The central nervous stimulant of choice

MENLEY & JAMES, LTD., 123 COLDHARBOUR LANE, LONDON, S.E.5, ENGLAND
 for Smith Kline & French International Co., owner of the trade mark 'Dexedrine'
 DX:NP

*Meeting two
modern needs*



**LAST THING
EVERY NIGHT**

The bottle position has improved for SANIDENT and ZOFLORA sizes and we are now able to supply in greater quantities.

SANIDENT

*Denture
Cleaner*

Twenty years of regular use have proved its efficiency and safety.

Retail 1/4½

Zoflora

Perfumed

DISINFECTANT

is an efficient germicide, fragrant with strongly antiseptic floral oils and synthetics, and is especially suitable for the spraying of rooms, to dispel tobacco, cooking or unwanted odours. It is of particular value in the sickroom, where it purifies the atmosphere and refreshes nurses and patients alike.



**PURIFIES
THE AIR**

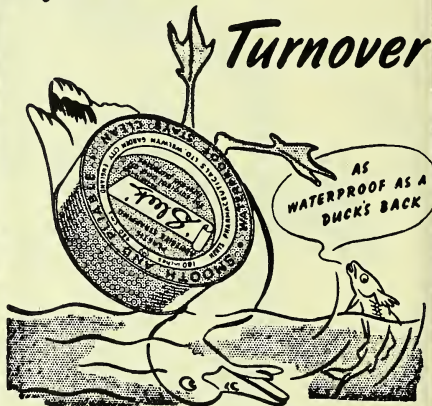
Retail Price 2/-
Complete Spraying
Outfit 10/-

Usual Trade Discounts

THORNTON & ROSS
Manufacturing Chemists
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TR140

A Quick Turnover



'SLEEK' plastic adhesive strapping is a first-class product which has received an enthusiastic welcome from doctors and nurses. Turnover is quick and supplies are ample. Display it and introduce it to your customers.

We have produced a 'SLEEK' Sales Manual which will tell you and your staff all you want to know about the product. Ask our representative for a copy or send us a postcard.

1" x 5 yard spools . . . Retail 2/- each

2" x 5 yard spools . . . Retail 3/6 each

Available in flesh colour or white

'Sleek'

TRADE MARK

**PLASTIC ADHESIVE
STRAPPING**

Herts Pharmaceuticals Ltd., Welwyn Gdn. City, Herts
Telephone: Wel. Garden 3333

51-

Quickly dispensed PENICILLIN LOZENGES

IN ASEPTIC

MOISTURE-PROOF PACK



Each Lozenge is completely sealed in moisture-proof foil, and 20 Lozenges are contained in this special dispensing pack. When dispensing simply tear off the printed flap, which is already perforated at one edge for quick handling and the directions can then easily be affixed on the blank face of the carton.

Price: 9/- per dozen cartons of 20 Lozenges.

Obtainable from:

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(4 lines)



Branch Office and
Works:
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ASHTON-U-LYNE
Phone: 2816
(2 lines)

I.C.C. £10[★] PARCEL



**★ Costs only
£8.15.0
YOUR
PROFIT
£4.11.8**

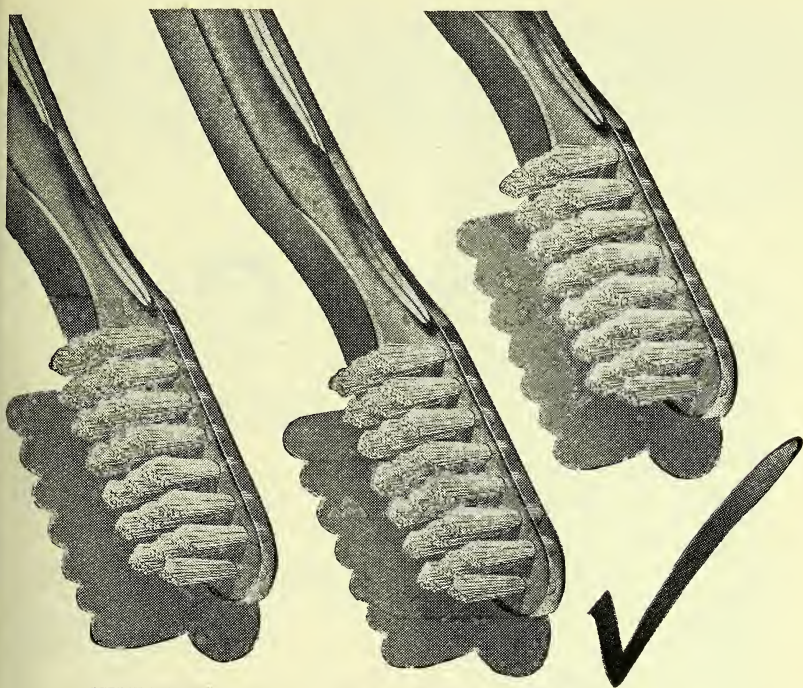
I.C.C. products include:

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- 'Anadin' Tablets
- 'BiSoDol' Tablets
- 'BiSoDol' Powder
- 'Bisurated Magnesia' Tablets
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- 'Freezone' Corn Remover
- 'Kolynos' Dental Cream
- 'Kolynos' Denture Cream
- 'Kolynos' Denture Powder
- 'Kolynos' Shaving Cream
- 'Lystone' Salts
- 'Pineate' Honey Cough-Syrup
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Chenies Street, London, W.C.1.





**it's a better brush
if it's made with
NYLON**

Nylon sets an unequalled standard of hygiene.

IMPERIAL CHEMICAL INDUSTRIES LTD
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P.N.91



What They Said About

SILCOT *yesterday*

They are Saying To-day



1946 There is now a preference shown for Silcot above any other make.—Leamington

1947 Your goods have such a wonderful reputation they sell themselves very quickly.—Worthing

1948 Silcot are my most popular line.—Birmingham

1949 Your Silcot is the best seller in these lines that I have.—Newcastle-on-Tyne

1950 . . . These are remarkable sellers.—Sheffield

. . . So many people like this towel.—Cookham, Berks.

. . . Thank you for the lovely pads you make.—Bolton

Silcot advertisements appear regularly in the leading women's magazines. Over 9,000,000 women read these magazines each month. Above is the illustration from the current advertisement.

You should stock

VENSILLA

Soluble Towels

Vensilla towels are made in Standard size, with loops. They have soft covers and a protective backing. Vensilla are

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**Indigestion Remedies—
EFFERVESCENT ANTACID
therapeutically efficient
single-dose packs**

THE CHEMIST AND DRUGGIST
18 March 4, 1950

*For the relief of
Indigestion, Flatulence,
Heartburn, Acidity, etc.*

DIRECTIONS

Open envelope by tearing across the top, add the contents to a glass of water and stir. Take immediately or up to two hours after meals, repeat as required. For children under 10, use half quantity.

COMPOSITION

Calc. Phosph.	11.63	Sod. Bicarb.	25.42
Mag Carb. Pond.	5.86	Mag. Cit.	2.30
Mag. Phosph.	11.63	Acid Tart.	23.85
Sod. Phosph. Acid	4.09	Excip. & flav	to 100.00

HARWOOD LABORATORIES LTD.

Effalgen

*For the relief of
Indigestion, Flatulence,
Heartburn, Acidity, etc.*

DIRECTIONS

Open envelope by tearing across the top, add the contents to a glass of water and stir. Take immediately or up to two hours after meals, repeat as required. For children under 10, use half quantity.

Calc. Phosph.
Mag Carb. Pond.
Mag. Phosph.
Sod. Phosph. Acid

HARWOOD

Effalgen

*For the relief of
Indigestion, Flatulence,
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Open envelope by tearing across the top, add the contents to a glass of water and stir. Take immediately or up to two hours after meals, repeat as required. For children under 10, use half quantity.

Calc. Phosph.
Mag Carb. Pond.
Mag. Phosph.
Sod. Phosph. Acid

HARWOOD

Effalgen

Open envelope by tearing across the top, add the contents to a glass of water and stir. Take immediately or up to two hours after meals, repeat as required. For children under 10, use half quantity.

HARWOOD

Effalgen

*Relieves
INDIGESTION
FLATULENCE
HEARTBURN
ACIDITY, ETC.
without risk
of alkalinity*

EFFALGEN is the ideal corrective for hyper-acidity of the stomach—the most frequent cause of indigestion, flatulence and heartburn. By making use of compounds which act as alkalis only in the presence of acid, EFFALGEN neutralises excess acidity gradually. It cannot cause a condition of alkalosis.

All sufferers from digestive disorders can now enjoy effective, safe, prolonged, relief. Effervescent and pleasant to take, EFFALGEN is as suitable for children as for adults.

In its attractive individual - dose pack, EFFALGEN will sell on sight. Doctors throughout the country are being regularly circularised. Millions of sufferers are waiting for the relief EFFALGEN will bring.

PRICES

	RETAIL (INC. P.T.)	WHOLESALE (PLUS P.T.)
Carton of 10 Doses	2/6 each	18/- dozen
Carton of 20 Doses	4/6 each	33/9 dozen
Window Display Discount 10%. Cash Discount 2½%.		

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FOR
Keating's
Powder
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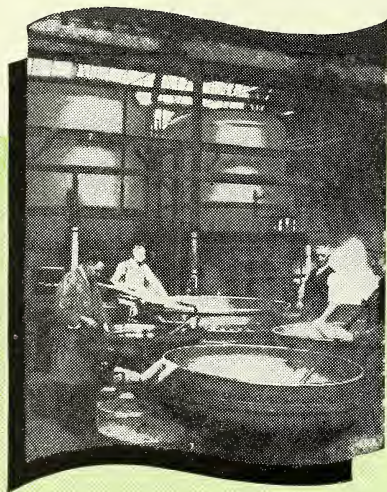
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N.B. This offer applies only to England and Wales

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The manufacturing processes involved in the production of galenical preparations from medicinal plants need expert attention at every stage.

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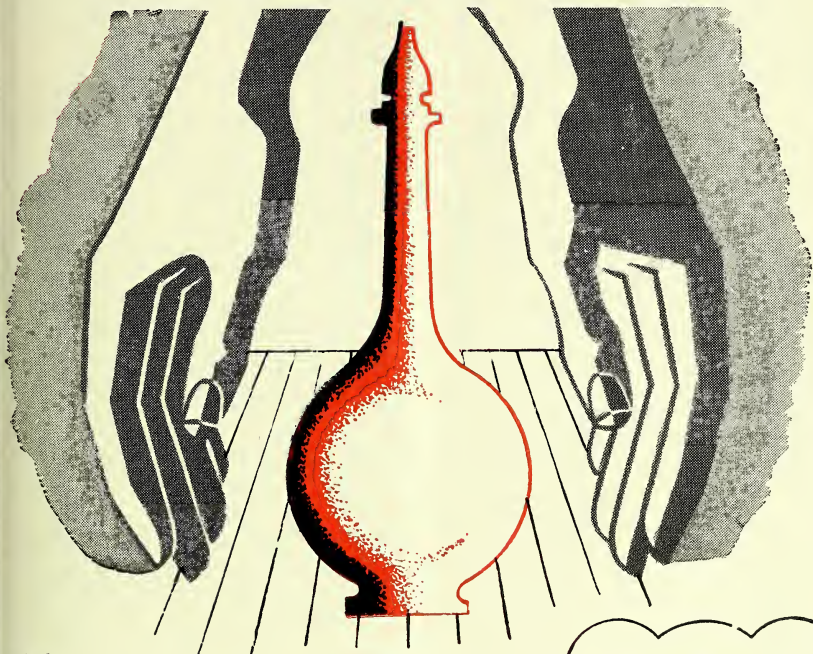
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MAY 8-19

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"Wembley Sports" is packed in a striking red, black and yellow box, and colourful showcards and counter literature will be available. National advertising will be employed during the summer months to ensure a steady customer-interest.

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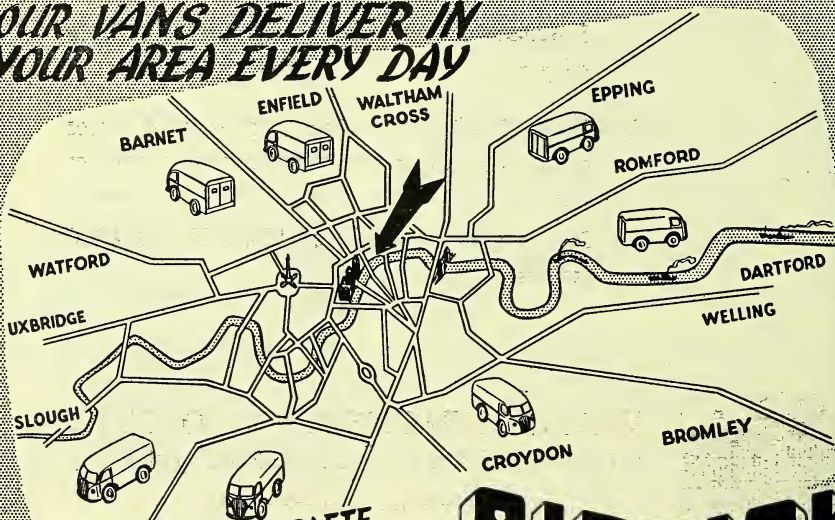
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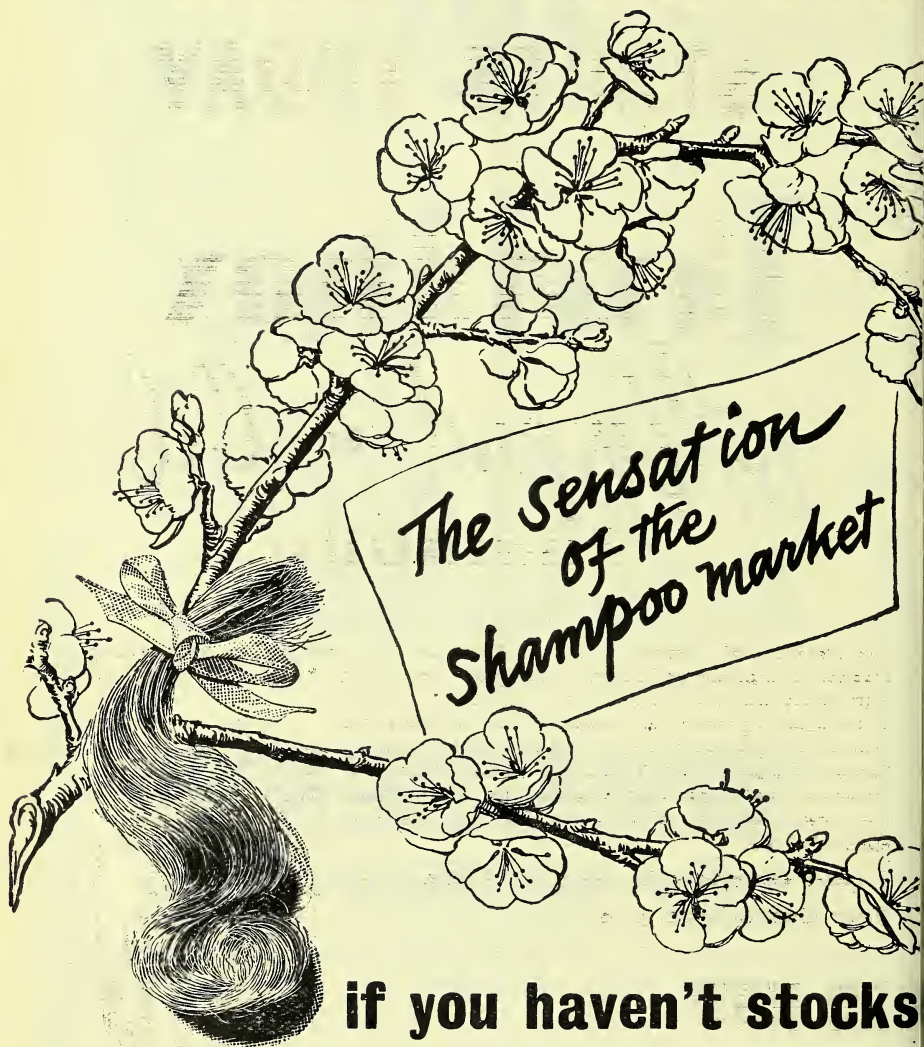
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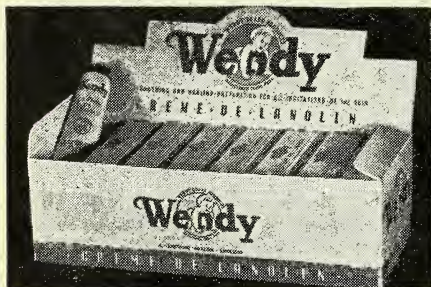
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Now reduced . . .

This is to remind you that certain
Yardley prices are now reduced

As you have already been advised the lines affected are . . .

New Retail Price

1412 Liquefying Cleansing Cream.....	5/10
1413 Dry Skin Cleansing Cream.....	5/10
1419 Complexion Milk.....	5/6
1430 Astringent Lotion.....	5/10
1418 Toning Lotion.....	5/6
1411 Night Cream.....	5/10
1417 Make-Up Base.....	5/6
1410 Foundation Cream.....	5/6
1416 Liquid Foundation.....	5/10
1414 English Complexion Cream.....	5/10
1468 Lipstick Refill.....	2/6
5 Cream Rouge.....	3/6
4406 Compact Rouge.....	3/6
18 Eye Shadow.....	3/6
1400 Yardley Complexion Powder.....	4/6
1415 Hand Cream.....	4/6

***In addition we have decided to make price reductions
on two Yardley perfumes . . .***

4172 Orchis, Half-Ounce from 19/6 to 17/6
1972 April Violets, Half-Ounce from 19/6 to 15/6

You know of course

2793 Bond Street 37/6
2792 " " 19/6

YARDLEY & CO LTD

33 Old Bond Street London

GALE'S NUTRITIOUS TONIC**MORELIX**

(Regd.)

ESPECIALLY SUITABLE FOR
CHILDREN
AND DURING CONVALESCENCE

Contains Liquid Malt,
Vitamins A & D, Hypophosphite
and Virginian Prune.

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BRAND

GALE, BAISS & CO. LTD.,
274/276, ILDERTON ROAD, S.E.15



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for higher sales!—

EVERGREEN

Peter Claridge's newest perfume. Its fresh, spring-like quality promises to make it as popular as its glamorous predecessors "Dual Control" and "Smart Party". Soon *you* will be asked for this latest creation. Gaily decorative display packs and the retail price of 2/- ensure ready sales. If our representative has not already called, ask your wholesaler or write for trade terms and details to:—

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by L. M. Spalton, B.Pharm., M.P.S.

Today, the pharmacist is faced with an almost bewildering assortment of emulsifying agents, all having varying properties and requiring different methods of treatment.

In this book the considerable range of these products has been classified, together with essential practical points about their pharmaceutical use. It contains chapters devoted to the theory of the formation of emulsions, properties of different emulsifying agents (classified into groups according to their structure and characteristics), the formulation and preparation of emulsions, the general methods of preparing emulsions with details of technique and causes of emulsion separation, preservation and storage of emulsion, etc.

The practical uses of emulsifiers is dealt with at considerable length, together with methods of handling each type of emulsifying agent and full notes of incompatibilities and other matters.

The book also contains a classified index of over 300 emulsion agents used in the Drug, Toilet and Cosmetic trades and other industries, with references to their composition, type and uses, together with an index of manufacturers.

Useful and up-to-date—this book provides essential information in concise form.

★ *Every pharmacist should possess a copy*

5/6

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stocking and displaying*
ANGIERS JUNIOR ASPIRIN
for Children

'JUNIOR' IS SPECIALLY PREPARED FOR CHILDREN

Each tablet contains:—

A SAFE DOSE OF ASPIRIN—1.25 grains

A SAFEGUARD AGAINST GASTRIC IRRITATION—Di-Calc.Phosph. 1.50 grains

SWEETENING AND FLAVOURING

TO MAKE THE TABLET PALATABLE TO CHILDREN

'JUNIOR' WILL BRING YOU IMMEDIATE SALES

Attractively cartoned and packed in one dozen display outers, and supported with showcards, ANGIERS JUNIOR ASPIRIN is being sampled and detailed by post to the Professions, and advertised to mothers of young children throughout the U.K.

'JUNIOR' WILL BRING YOU GENEROUS PROFITS

The retail price of 'JUNIOR' including purchase tax is 1/6 per bottle of 50 tablets. Trade price per dozen excluding purchase tax is 10/-; purchase tax 3/4 per dozen.



ANGIERS JUNIOR ASPIRIN

(Retail Price 1/6 for 50 tablets including P.T.)

Sole distributors for The Angier Chemical Co., Ltd.,

ASSETT & JOHNSON LTD., 86, CLERKENWELL ROAD, LONDON, E.C.1



There's more Ribena now!

THE position with regard to supplies of Ribena is easier. With the new

Carter Royal Forest Factory gaining momentum, and last year's blackcurrant crop a bumper one, there should now be enough Ribena *for most people who need it*. You should now be able to meet all priority needs. If in difficulty write to C. Massingham, Supplies Director.

Ribena
BLACKCURRANT SYRUP
(particularly rich in natural vitamin C)

H. W. CARTER & CO. LTD., THE ROYAL FOREST FACTORY, COLEFORD, GLOS.

MANESTY

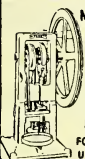
TABLET MAKING MACHINERY



**MANESTY
F3
TABLET
MACHINE**

OUTPUT
85
PER MIN.

FOR TABLETS UP TO $\frac{3}{4}$ " DIAM.



**MANESTY
HAND
TABLET
MACHINE**

OUTPUT
100
PER MIN.

FOR TABLETS
UP TO $\frac{1}{2}$ " DIAM.



**MANESTY
E2
TABLET
MACHINE**

OUTPUT
85
PER MIN.

FOR TABLETS UP TO $\frac{1}{2}$ " DIAM.



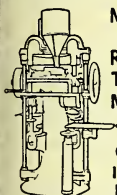
**MANESTY
HAND
COMPACT
PRESS**

OUTPUT
2000
COMPACTS
PER DAY

**MANESTY
CP2
COATING
PAN**



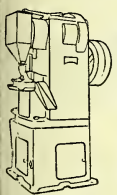
STANDARD
SIZE
30" DIAM.



**MANESTY
B.B.3
ROTARY
TABLET
MACHINE**

OUTPUT
1000-1500
PER MIN.

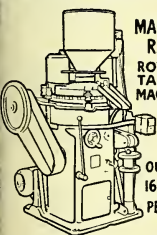
FOR TABLETS UP TO $\frac{1}{2}$ " DIAM.



**MANESTY
Nº2A
TABLET
MACHINE**

OUTPUT
55-220
PER MIN.

FOR TABLETS UP TO $\frac{1}{2}$ " DIAM.



**MANESTY
R.S.1
ROTARY
TABLET
MACHINE**

OUTPUT
168-336
PER MIN.

FOR TABLETS UP TO $1\frac{3}{8}$ " DIAM.

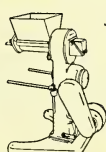
We can supply
PUNCHES and DIES
for
ALL MAKES of TABLET MACHINES



**STAND D. 12
OLYMPIA**

**FLAT
CONCAVE
SUGAR COATING
PILL
BALL
BEVEL EDGE
ROUND
SPECIAL SHAPES
ENGRAVED
EMBOSSSED**

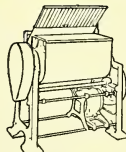
**ALSO TUNGSTEN CARBIDE INSERT
DIES. CHROMIUM PLATED PUNCHES
AND DIES**



**MANESTY
"ROTORGRAN"
OSCILLATING
GRANULATOR**

OUTPUT
150-224
LBS.
PER HOUR.

**MANESTY
MIXER**



CAPACITY
100 LBS.
OF POWDER

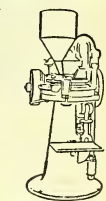
**MANESTY
B3
ROTARY
TABLET
MACHINE**



OUTPUT
400-500
PER MIN.

FOR TABLETS UP TO $\frac{1}{2}$ " DIAM.

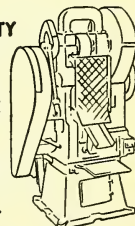
**MANESTY
D3
ROTARY
TABLET
MACHINE**



OUTPUT
300-350
PER MIN.

FOR TABLETS UP TO 1" DIAM.

**MANESTY
Nº3
TABLET
MACHINE**



OUTPUT
30-400
PER MIN.

FOR TABLETS UP TO $2\frac{1}{4}$ " DIAM.

MANESTY MACHINES LIMITED

5 SPEKE, LIVERPOOL, 19.

TELEPHONE: HUNTS CROSS 1972

TELEGRAMS: MANESTY, LIVERPOOL

News from DALMAS of Leicester

New *waterproof* protection for cuts

A NEW-TYPE ADHESIVE STRAPPING

Waterproof . . . has 101 First-Aid uses

DALMAS STRAPPING, a new *waterproof* plastic adhesive with 101 first-aid and other uses, is now in widespread demand everywhere. Because of this, supplies have been greatly increased.



These spools are handy

Dalmas Strapping can be cut to any size, gives 100% protection against water, dirt, grease and acid. That's why it's specially suitable for

any cuts, sore places, torn finger nails, etc. In particular, it is ideal wherever the fixing of a bandage would be awkward. Dalmas Strapping stretches *all* ways, so edges stick tight while allowing free movement of joints and muscles. Attractive counter sell-outs contain twelve 1/- spools, each 1 inch by 1 yard, price 8/-, or 24 spools, price 16/-. Also in 3-yard lengths, and in 2 inch and 3 inch widths.

DALMAS HEEL DRESSINGS. A new *waterproof* dressing that is specially designed for sore and blistered heels. Handy boxes, price 1/- retail.

DALMAS FINGER-TIP DRESSINGS. A new *waterproof* adhesive protection for cracked, cut or sore finger-tips. Handy boxes, 8/- per dozen, to retail at 1/- each.

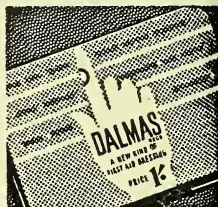
DALMAS BOIL PLASTERS. A new *waterproof* protective dressing for boils. Skin-coloured, hardly shows. Handy boxes, price 10d. retail, including tax.

Heavy demand for Dalmas First-Aid Dressings

TO meet the nation-wide demand, we have further increased supplies of Dalmas, the *waterproof* plastic dressing that offers a totally new method of protecting cuts and minor wounds.

Dalmas gives 100% protection against water, dirt, grease and acid. So you need only cover the affected place and . . . no further trouble! You can actually *wash with it on*.

Dalmas stretches *all* ways (not just one way). That's why edges stick tight, cannot fray, cannot catch in clothes. What's more, Dalmas lessens infection risk, promotes safe and easy healing.



Display this box on your counter

Dalmas is skin-coloured, hardly shows. In attractive blue-and-white counter sell-outs, containing three dozen 1/- boxes, price 8/- per dozen. Special quantity discounts. **PLACE YOUR ORDER NOW!**

A. de St. Dalmas & Co. Ltd.

LEICESTER (Phone: Leicester 65261)

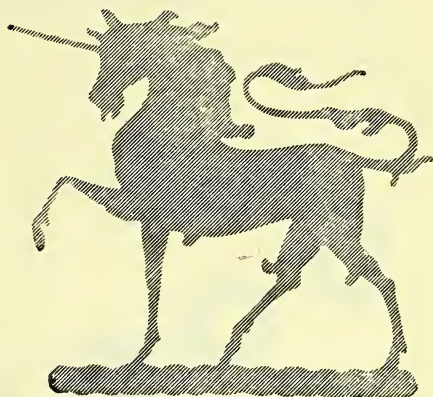
London Depot: 140-142 St. John St., E.C.1
(Clerkenwell 3399)

Leeds Depot: 14 Neville Street
(Leeds 29764)

Scottish Agents:

Robert Telford, 29 Waterloo St., Glasgow, C.2
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The **brand**
makes the
distinction



Pharmacists have learnt to tame the vegetable purgatives, known in other centuries for their vigour. They have combined very small doses of several, so that adequate laxative action is obtained without causing irritation. A gentle natural action and sustained intestinal tone are finally ensured by adding a mild antispasmodic and a carminative.

Such is the art which goes to make 'Tabloid' brand Laxative Vegetable.

Such is its reputation that many customers insist on 'Tabloid' brand.

Each sugar-coated product contains:—

Compound Extract of Colocynth, B.P. 1914	...	...	...	...	gr. 1
Extract of Jalap	...	...	...	...	gr. 1/2
Podophyllum Resin	...	...	...	...	gr. 1/4
Green Extract of Hyoscyamus, B.P. 1898	...	...	...	...	gr. 1/4
Menthol...	...	...	...	...	gr. 1/20

Retail Prices:

Bottle of 25.....	1s. 0d. plus 3d. tax
Bottle of 100.....	2s. 10d. plus 8½d. tax

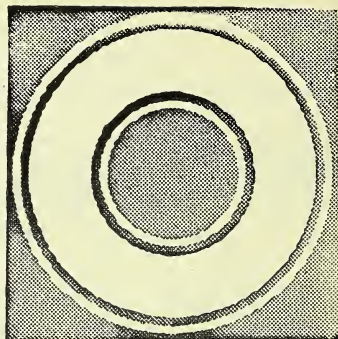
'Tabloid' BRAND Laxative Vegetable

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C^{ortone}
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(Deoxycortone acetate B.P.)

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ADDISON'S DISEASE

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2, 5 and 10 mgs. per cc.

IMPLANTATION

100 mg. pellets

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SUBLABIAL

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COMPOUND BLACKCURRANT and IPECAC

For all children under ninety-nine

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PARATHYROID
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INDIA

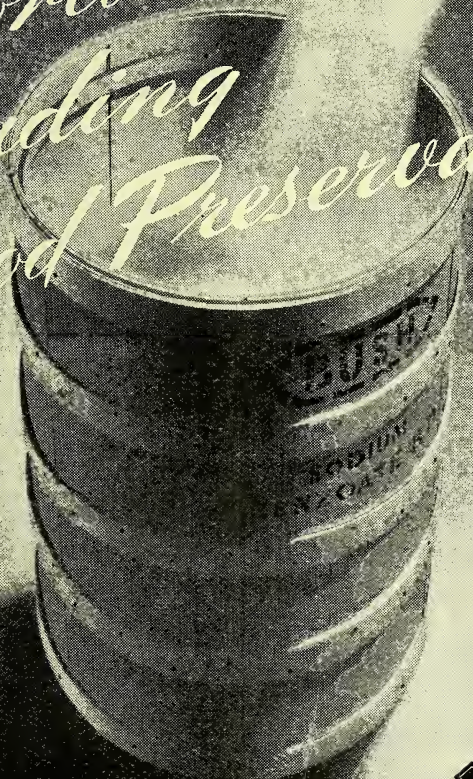
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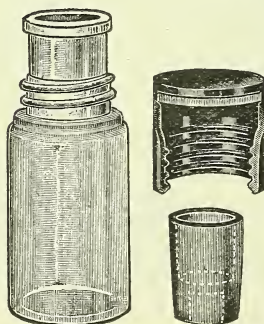
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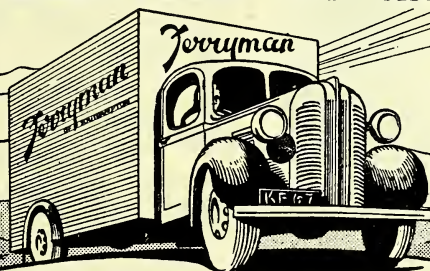
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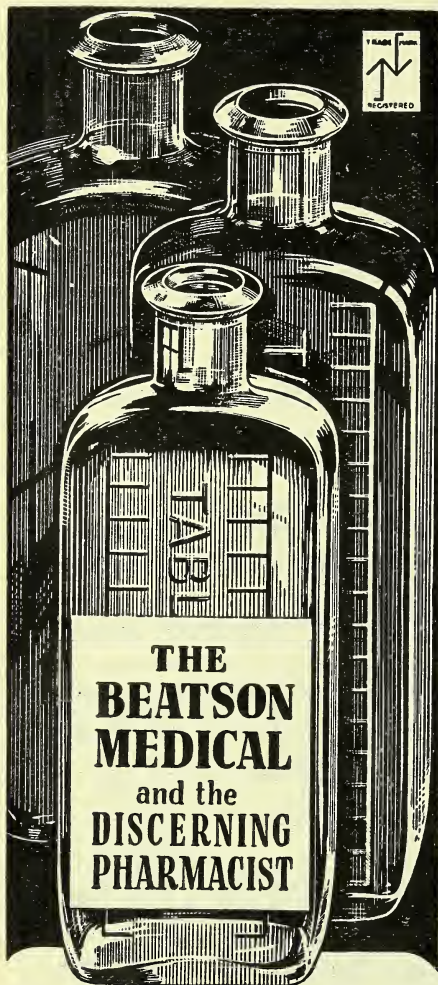
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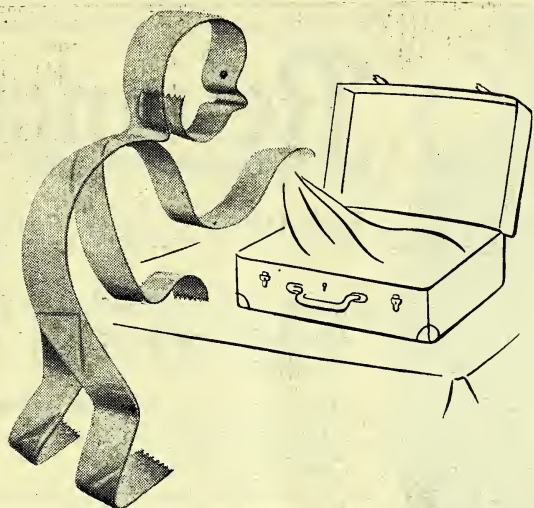
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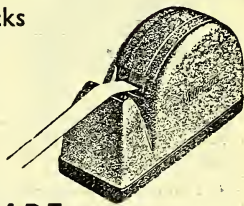
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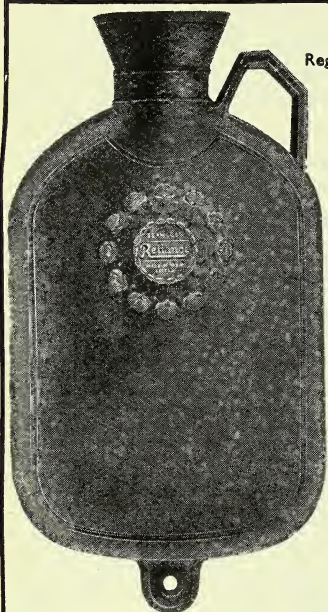


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"DORMIPRIN C.P.L." combines the *non-toxic* sedative properties of carbromal and bromvaletone with the non-irritant analgesic action of *alkalized* aspirin.

"DORMIPRIN C.P.L." produces no habituation, bromide rashes or gastric irritation and is entirely without the clinically undesirable side-effects of the barbiturates.

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"DORMIPRIN C.P.L." has no B.P., B.P.C., or N.F. equivalent and may be freely prescribed by N.H.S. doctors on Form E.C.10.

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Absorbent Petal Soft, New fold tissues, Improved Folding for Boudoir, Bathroom or for travel use. Conveniently dispense from specially constructed, attractively printed cartons, designed for immediate single selection of coloured tissue without contamination. Each box contains 100 single sheet 9" x 10" folded 4½" x 5". Obtainable in white only or supplied assorted tints and self colours.

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Specially designed Dispenser Carton contains 2 regular sized tissues (12 pulls) white only, folded 2½" x 5" for handbag, school and travel use.



★ **HANKIES** also supplied with embossed hem-stitched borders in Cellophane Pack.

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In Stainless Steel—Nickel Plated and Chromium over Nickel

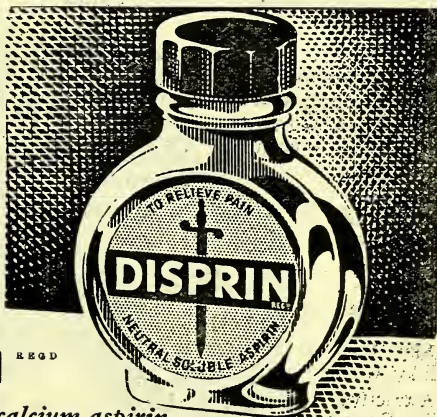
Our order books are full for some time ahead, and immediate deliveries cannot be promised. We shall, however, welcome your enquiries for forward deliveries.
(WHOLESALE ONLY SUPPLIED)

ASPIRIN is an acidic substance, sparingly soluble.

DISPRIN is neutral, stable, soluble—and palatable.

The reasons for preferring calcium aspirin to aspirin lie chiefly in the fact that it is a neutral, soluble and bland compound, whereas aspirin is acidic, sparingly soluble and may act as a gastric irritant. But calcium aspirin has a defect of its own—chemical instability; and in consequence attempts to manufacture it in the form of tablets that could be depended upon to remain free of nauseous breakdown products, under reasonable conditions of storage, have hitherto met with little success. These difficulties have now been overcome. 'Disprin', a stable tablet preparation, readily dissolves to yield a substantially neutral and palatable solution of calcium aspirin that can be prescribed in all conditions in which acetylsalicylate administration is indicated.

Extended clinical trials show that Disprin in massive dosage, even over long periods, can be tolerated without the development of gastric or systemic disturbances.



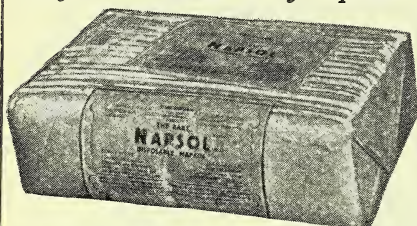
DISPRIN REGD

Neutral, soluble, stable, palatable calcium aspirin

On prescription Disprin is free of Purchase Tax
Clinical sample and literature supplied on application.

A sure 'seller'

... when displayed near your
baby scales or with baby requisites



THE BABY

NAPSOL

DISPOSABLE NAPKIN. Made of absorbent cellulose with pink unabsorbent backing.

Pkts. of 24 = 18/- per doz.

Retail 2/- per packet.

Packets of 12—11/3 per doz.

Retail 1/3 per packet.

TIE UP SALES WITH:
The NAPSOL Baby hygienic Panty

SMALL—20/- per doz.

Retail 2/6 each

MEDIUM—22/- per doz.

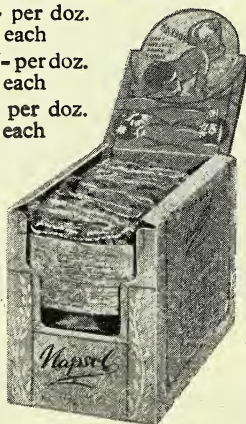
Retail 2/9 each

LARGE—24/- per doz.

Retail 3/- each

Two types,
Elastic or
bound legs.
Garment
finish.

Colours—
Tearose
Pink
Sky Blue
Milky White
Attractive
Five Colour
Display Box



M. MERICA & Co. Ltd.

**QUEENS MILL - SHAW ROAD
OLDHAM - LANCs.**

Telephone: MAIN 5803

At the sink
or in the swim...



the PUCK
Undercaps give
perfect protection.
They sell all the year
through as a dust-cap, bath-cap
or swim-cap. Order Now—they're always
popular... never long before you need more



Supplied in outers containing
4 dozen assorted (red, yellow,
pale blue and white). Each
cap packed in window car-
ton to show colour.

Retail
Price

1'6
INC. TAX.



**BATH CAP
SWIM CAP
DUST CAP**

GROVEWELL LTD.

656 Forest Road, Walthamstow, London, E.11
Only Wholesalers Supplied



LANETTE

(Registered Trade Mark since 1930)
(of Deutsche Hydrierwerke A.G.)

WAX SX

MANUFACTURED IN ENGLAND

The original product was always imported
from Deutsche Hydrierwerke prior to the war

Special Reduced Quotations

Ask for booklet, samples, etc.

CYCLO CHEMICALS LTD

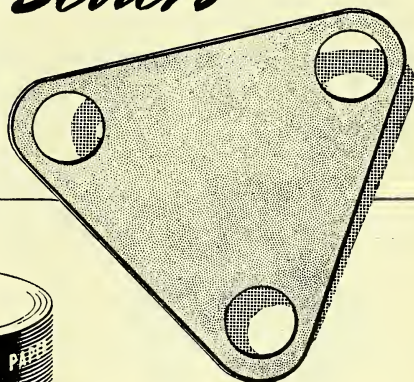
Manfield House, Strand, London, W.C.2

**UNITED KINGDOM REPRESENTATIVES
OF DEUTSCHE HYDRIERWERKE A.G.
DUESSELDORF**

LIFEGUARD

MIRACLE DISPLAY

*makes "stacks"
of Best Sellers*



- **BIGGEST ADVERTISING**
brings in customers.
- **BEST DISPLAYS**
secure sales.
- **BRIGHT FOLLOW-UPS**
mean regular business.

LIFEGUARD LEADS

Regd. Trade Mark

to healthier profits for you

LIFEGUARD PRODUCTS LTD., 21 WATLING STREET, E.C.4

WILES dogfood

IS FULL OF GOODNESS

and it sells on sight

This quality dog food contains concentrated meat, liver and fish. It is packed in handy airtight tins, attractively labelled in red and black, and specially designed for easy stacking and display.

Bright attractive showcards and window bills are now available.

Order your supplies of Wiles Vitamin dog food through your usual Wholesaler.



Made exclusive
by WILES
WOODMANSE
E. YORKS.

RETAIL PRICE

The finest dog food in the world



**C. Olley
& Sons Ltd.**

EST. 1844

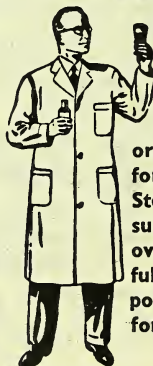
**CORKS,
STOPPERS,
ETC.**

Telephone

Royal 4922/3

**CAMPERDOWN STREET
LONDON, E.1**

GARDINER'S FOR COATS



Due to the difficulty in obtaining supplies of white coats, white jackets, etc., it is not possible to accept orders for such goods for the time being. Stocks of blue boiler suits and bib and brace overalls are fairly plentiful and we are in a position to accept orders for same from stock.

Gardiner & Co. (The Scotch House) Ltd.
1, 3 and 5 COMMERCIAL ROAD, LONDON, E.1
Opposite Aldgate East Station. Phone: B18 6761 (3 lines)
Branches: DEPTFORD, S.E.8;
WOOLWICH, S.E.18; CLAPHAM, S.W.11.

BE READY

FOR THIS SEASON'S INCREASED EGG PRODUCTION



With extra poultry foods available, more of your customers will be preserving eggs this season. This means more requests for Goodall's Waterglass. Be sure your stocks are sufficient to meet the increased demand. Goodall's Waterglass gives a clear, clean fluid. Packed in attractive all-metal leakproof tins.

No. 1 size in 4 & 6 doz. cases; No. 2 size in 2 doz. cases

Cases are free and non-returnable.

Goodall's WATERGLASS

EGG PRESERVATIVE

GOODALL, BACKHOUSE & CO., LTD.
SOVEREIGN STREET, LEEDS

PROMOL

JUNIOR MOTH RINGS

CONTAIN DEADLY D.D.T.

PROMOL MOTH RINGS JUNIOR SIZE are now doubly efficient by compounding Napthalene with Paradichlorbenzenum and D.D.T. The first two, powerful moth repellents, evaporate gradually, leaving the deadly D.D.T. as fine powder which ***kills insects by contact*** thus giving an extra protection. Tell your customers this for **SURE SALES.**

Twice as efficient as before—twice as saleable. 8 rings for 4d.

Attractive red, white and blue display carton. Enquiries invited.



**Send Your
Enquiries
NOW!**

PROMEDICO PRODUCTS LTD., 21/22 Turle Road, London, N.4.

*How to sell
more Sparklets Bulbs!*



Offer your customers the **Sparklets Syphon Repair Service** . . . even the most dilapidated syphon can now be rebuilt as new. It's not just a case of "make do and mend" — *It's sound business.*

★ Write for showcard and list of repair charges.



SEE OUR EXHIBITS AT B.I.F. OLYMPIA—STAND E



**LIGHT
MOULDED—**

graduated in red in tea-spoon and table spoon quantities. Wholesale Trade only

Jules Lang

ESTABLISHED 1858

JULES LANG & SON

96 HATTON GARDEN, LONDON, E.C.1

Tel.: HOLborn 8687 (5 lines). Manchester Office
74 Corporation St., Manchester 4. Deansgate 5631



The Traveller reports . . .

'It would help us a great deal'

THE TRAVELLER IS RIGHT

The local newspapers will move *your* products more quickly over the counter.

Advertisers and Advertising Agents are invited to write to our Information Officer, who will gladly give all possible information and assistance.

"... dealers in this area are not too enthusiastic about ordering. Our lines are not moving at all well, as many customers are using a rival product which is now being advertised in the local newspapers. Retailers say that this local advertising always has a marked influence on counter sales. I feel sure it would help us a great deal if we advertised in the local newspapers."

Where there's a shop there's a local newspaper

THE NEWSPAPER SOCIETY, SALISBURY SQUARE HOUSE, E.C.4

TELEPHONE: CENTRAL 4722

TELEGRAMS: NUPASOCIE PHONE LONDON

"Winter Photography"

means ALL YEAR ROUND

Sales

NEW D20 CORONET BOX CAMERA

now available for the home
market in limited quantities.

BOX CAMERA 43/4 Tax paid
Retails at only

FLASH UNIT 36/10 Tax paid

DUFAY-CHROMEX LTD., 14/16 COCKSPUR ST., LONDON, S.W.1

TEL: WHITEHALL 674



A DUFAY PRODUCT

Here's REAL Trade News!

DYLON

THE NEW DYE FOR ALL FABRICS
offers you the biggest
profit margin!



The success of this amazing new
dye, DYLON, has been sensa-
tional. Here is why:

- A unique formula makes DYLON the only dye for ALL fabrics including nylon, rayon, acetate, plastic.
- Moisture-proof aluminium pack ensures perfect freshness—no deterioration.
- In self-service counter-display units, 36 shades. Retail price 6d. and 1/9d.
- Extensively advertised.
- Certified by Good Housekeeping Institute.
- Fully supported by the unique Remover, DYGON: Retails at 6d. and 1/9d.

MAYBORN PRODUCTS LTD.

Dylon Works, Berryman's Lane,
LONDON, S.E.26

RECOMMEND

S.D.2

with confidence

PENETRATES and REBUILDS DAM-
AGED TISSUE in SKIN ILLNESSES

Remarkable for the Treatment of Burns,
Spots, Rashes, etc.

BIO-COLLOIDS LTD., Altrincham, Cheshire
BC35

BRITISH MADE AMPOULE FILES

are now available

We are now in a position to manu-
facture large quantities of Ampoule
Files and invite inquiries

DOMINION STEEL CORPORATION
LTD.

"FLEET" WORKS
QUEEN'S ROAD, SHEFFIELD, 2

HIS HANDY PLASTIC CONTAINER IS
**Increasing the already
 great demand for
 KORAY**

Those thousands who regard KORAY as their "First
 Aid" in case of pain are making this plastic container
 their constant companion. It holds 5 tablets and
 fits into a waistcoat pocket or the smallest handbag.



There is a container in every one of the neat,
 "Cellophane"-wrapped packs of KORAY 28's
 and 64's. These larger sized packs of KORAY
 tablets give you a good profit margin and are
 excellent counter-lines. They are backed by
 powerful national advertising and create
 that goodwill which is only associated with
 a tried and proved product of quality.



*The 10 tablet pack, recently re-designed, will act as an
 introduction to those who are not yet fully aware of the
 thoroughly dependable analgesic qualities of KORAY.*

Send your order now to:

KORAY LTD., GOLDEN MILE WORKS, BRIDGEND, GLAM.

*Increase
your
Toilet
Sponge
Sales
with-*



A NEW . . .

A Wider Market

You can do much bigger business in toilet sponges when you offer

Spontex. These high quality sponges, in attractive colours at attractive prices, are being bought by people who have not before been sponge users. They offer you completely new sales opportunities. Order Spontex Sponges in assorted colours to take advantage of their unique display possibilities. Enquire through your usual supplier or in case of difficulty write to the address below. (*Showcard on request*).

OVAL TOILET SPONGE (No. 33)
In four delightful colours: natural yellow, blue, green and pink. Retailing at 2/9d. including purchase tax.

SPONTEX BATH SPONGE (No. 44)
In the same colours. Retail price 3/8d. including P.T.

SPONTEX BABY SPONGE
Extra fine, extra soft. In natural yellow, blue and pink. Beautifully wrapped. Retail price 2/5½d. including P.T.

SPONTEX COSMETIC SPONGE
Retail price 7½d. including P.T.

Made in Great Britain by :-

SPONCEL LTD., WOLDHAM ROAD, BROMLEY, KENT. Tel : RAVensbourne 264

FOR EVERY MONTH OF THE YEAR

"ZEMS" HERBAL LICORICE TABLETS

GUARANTEED
TO GIVE INSTANT RELIEF FOR
COUGHS, COLDS, BRONCHITIS, ASTHMA.

Prepared by **ZEMS LTD**

718-724 Seven Sisters Rd

Tottenham, N.15.

ZEMS
REGISTERED (BRAND)

Controlled Price
1/4½

**HERBAL
LICORICE
TABLETS**

Formula

<p>100 gms. of licorice root, cut into small pieces, and dried in the sun for 24 hours.</p> <p>100 gms. of licorice root, cut into small pieces, and dried in the sun for 24 hours.</p> <p>100 gms. of licorice root, cut into small pieces, and dried in the sun for 24 hours.</p> <p>100 gms. of licorice root, cut into small pieces, and dried in the sun for 24 hours.</p> <p>100 gms. of licorice root, cut into small pieces, and dried in the sun for 24 hours.</p> <p>100 gms. of licorice root, cut into small pieces, and dried in the sun for 24 hours.</p> <p>100 gms. of licorice root, cut into small pieces, and dried in the sun for 24 hours.</p> <p>100 gms. of licorice root, cut into small pieces, and dried in the sun for 24 hours.</p> <p>100 gms. of licorice root, cut into small pieces, and dried in the sun for 24 hours.</p> <p>100 gms. of licorice root, cut into small pieces, and dried in the sun for 24 hours.</p>	<p>100 gms. of licorice root, cut into small pieces, and dried in the sun for 24 hours.</p> <p>100 gms. of licorice root, cut into small pieces, and dried in the sun for 24 hours.</p> <p>100 gms. of licorice root, cut into small pieces, and dried in the sun for 24 hours.</p> <p>100 gms. of licorice root, cut into small pieces, and dried in the sun for 24 hours.</p> <p>100 gms. of licorice root, cut into small pieces, and dried in the sun for 24 hours.</p> <p>100 gms. of licorice root, cut into small pieces, and dried in the sun for 24 hours.</p> <p>100 gms. of licorice root, cut into small pieces, and dried in the sun for 24 hours.</p> <p>100 gms. of licorice root, cut into small pieces, and dried in the sun for 24 hours.</p> <p>100 gms. of licorice root, cut into small pieces, and dried in the sun for 24 hours.</p> <p>100 gms. of licorice root, cut into small pieces, and dried in the sun for 24 hours.</p>
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**THE BEST MEDICATED TABLETS FOR
COUGHS, COLDS, ASTHMA, BRONCHITIS, ETC.**

Supplies may be obtained




from C.F. Wholesale Houses

ZEMS LTD

718-724 Seven Sisters Road, London, N.15

Telephone: STAMFORD HILL 6658-9



IN MATTERS CONCERNING FEMININE HYGIENE...

SHE LOOKS TO
you **FOR**
PROFESSIONAL ADVICE

The responsibility to give professional advice when called upon has placed pharmacy in a position of high esteem, and it is a service especially valued by women. When it is a question of family limitation it is always wise to suggest a Rendells Product. As pioneers of the chemical contraceptive we can now offer a range of preparations to suit every individual requirement.

RENDELLS PESSARIES

RENDELL GELS

RENDELL-FOAM

RENDELL-CREAM

Rendells

PRODUCTS FOR FEMININE HYGIENE

W. J. RENDELL LTD. HARDWICK HOUSE, 161-5 ROSEBERY AVENUE, LONDON E.C. 1



Safety first

FOR PRODUCTS PACKED IN

MONO

Containers

mono waxed paper containers are hygienic and moisture-proof and preserve the contents in perfect condition.

Available with tapered or cylindrical bodies and screw or disc lids with printed designs that avoid labelling problems.

We invite your enquiries and should be pleased to send one of our representatives to call upon you.

MONO CONTAINERS LTD · CUMBERLAND AVENUE · PARK ROYAL · LONDON · N.W.10

Telephone No.: Elgar 4044.

Paper Container Manufacturers for over 40 years.

Associate Companies U.S.A., Canada, South Africa, Australia, New Zealand, France, Italy, Switzerland.

*Infants Feeding Bottles -
Upright & Double-ended*

another **W** product



The double-ended Feeder is supplied spare, or packed in carton with Teat, Valve and Brush, the Upright Feeder, spare only. Our quality and workmanship is unrivalled, having specialised in the production of Feeding Bottles for over 100 years.

WOOD BROTHERS

GLASS CO LTD OF BARNSELY IN YORKSHIRE

B.I.F. STAND No. S.44 GROUND FLOOR, EARLS COURT

SUCCESSFUL MARKETING REQUIRES:—

- ① *A product which can be recommended with confidence*
- ② *Prestige associated with a house of repute*
- ③ *Large scale National Advertising . . .*
- ④ *A fair margin of profit*



BENGER'S *Malted Milk*

FULFILS ALL THESE CONDITIONS

Prices:—

8 oz. tin 2/6 . . Retail 22/6 per doz. . . Trade

Subject to parcel discount



*Order now and link
up the National
Advertising with
your display stand:—*

A 'Benger' Product

distributed by

**British Chemicals & Biologicals Limited
Loughborough, Leicestershire**

Telephone: Loughborough 2292

WHITE FLINT

Medical and Pharmaceutical GLASS CONTAINERS

OF QUALITY-WITH SERVICE BEHIND THEM /

DISPENSING BOTTLES

1-oz. to 20-oz. Plain Cork
Mouth or Screw. 2-oz. to
16-oz. Plain or Graduated.

RIBBED OVALS

Cork Mouth or Screw.

VIALS

1-oz. 1-oz. 1½-oz. 2-oz. 3-oz.
Medium or Tall.

TABLET BOTTLES

Nos. 1 to 7½ sizes.

ROUND SCREW JARS

1-oz. 1-oz. 2-oz. 4-oz. Also
2½-oz. Shoulderless Screw Jar.

SCREW CAPS

White Enamelled Tinplate.
Aluminium and Black
Bakelite.

WHOLESALE
ONLY



NATIONAL

NATIONAL GLASS WORKS (YORK) LTD.

TRADE

MARK Fishergate, YORK
Tel.: YORK 3021

105 Hatton Garden, LONDON, E.C.4
Tel.: HOLBORN 2146



PRICE

ALTERATIONS

WILLIAM FREEMAN & COMPANY ANNOUNCE — certain price alterations in the Suba-Seal range of Safety Hot Water Bottles. Trade and Retail prices to the public are synchronised to come into operation from March 1st, 1950.

SUBA-SEAL PRODUCTS	LIST PRICE on and after 1st March, 1950	Retail Price incl. P.T. on and after March 1st, 1950
Suba-Seal Cot or Pram type Safety Hot Water Bottle.	3/9_D	4/7_D
Bear, Panda, Soldier, Sailor, Doll, Dog Toby, Clown	6/9_D	8/3_D

accordance with para-
graph 3 of the Suba-Seal
distributors Charter

"To maintain list prices of SUBA-SEAL products and in the event of any price reduction, to make an announcement in trade publications and to allow rebate on all existing stocks held by Wholesalers and Retailers at the time of such price reduction."

WILLIAM FREEMAN
— & COMPANY LIMITED —

will accept claims for Rebates

up to and including March 31st, 1950, on existing stocks of Suba-Seal Cot or Pram type Safety Hot Water Bottles. After this date no further claims will be accepted, so if any Retailer or Wholesaler is holding stocks of the above Bottles and desires to claim, they should contact us immediately when we shall be pleased to send a representative to discuss the matter.

PLEASE NOTE: No other trade or price alterations will occur in respect of any other SUBA-SEAL products during 1950.

WILLIAM FREEMAN & CO. LTD., SUBASEAL WORKS, BARNSELY, YORKS. Phone : Barnsley 4081. Grams : "Subaseal, Barnsley"

S T O R A G E M A D E S I M P L

"SECO"**STEEL STORAGE
EQUIPMENT****FOR FACTORIES AND STORES**

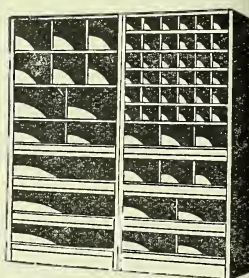
SECO Steel Equipment is suitable for all storage requirements, giving maximum storage capacity in the minimum floor space. A SECO Standard Unit is available to suit your every storage need. All units can be easily assembled with a screwdriver and spanner by unskilled labour on site. We also undertake the production and installation of storage equipment to customers' own specifications. The illustrations show a few standard units from the SECO Range. Send for List C.D.

The STEEL EQUIPMENT CO., LTD

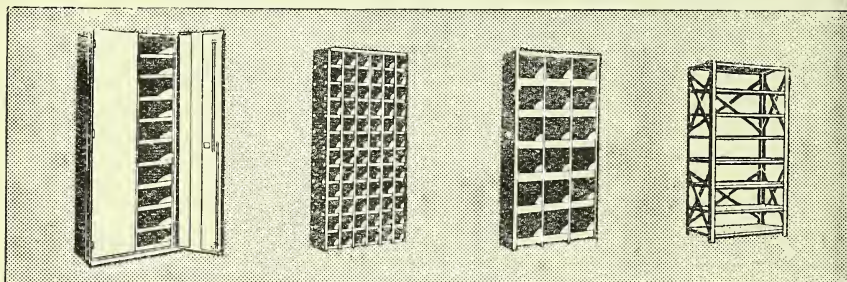
Greets Green, West Bromwich, Staffs.

Phone: TIPTON 1137-8-9

Grams: Equipit, West Bromwich



UNIT No. 950/I



L.G.F.

JOS. WEIL & SON

FRIARS HOUSE, 39/41 NEW BROAD STREET
LONDON E.C.2 Telephone LONDON Wa.1 5052/4

*Piperazine B.P.C.**Potassium**Guaiacolsulphonate**B.P.C.**Mercury**Oxides*

Sole U.K. Agents of

FARMACEUTICI
ITALIA S/A.

**WELL KNOWN FIRM OF
TOILET ROLL AND INTER-
LEAVED PACKET MANU-
FACTURERS (Factory
LONDON) WITH MODERN
PLANT WILL ACCEPT
ORDERS, FROM ESTAB-
LISHED FIRMS, AT VERY
KEEN PRICES FOR 6 oz.,
7 oz. and 8 oz. MEDICATED
TOILET ROLLS. TOILET
ROLLS CAN BE BANDED
WITH HIGHLY GLAZED
BANDS—2/3 COLOURS TO
CUSTOMERS OWN DE-
SIGN. ANY WORDING
DESIRED CAN BE PRINTED
ON EACH SHEET.**

Box No. C. 5446

Kiddies love it! Mothers praise it!

... and it's a fine selling line!

A sound therapeutic preparation too, which you can confidently recommend for kiddies' coughs and colds, well knowing that it's delicious flavour (FERUTE contains *real* blackcurrant and raspberry juice) will earn you favour with the children and grateful thanks from worried mothers. FERUTE is a real "good-will" builder. Never sticks on the shelves. Repeats and repeats and repeats. Truly a happy "till knker"!

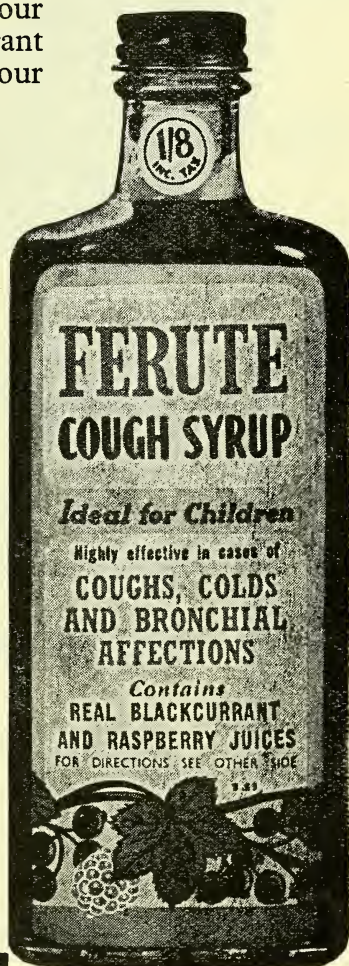
FERUTE COUGH SYRUP

*Contains real Blackcurrant and
Raspberry Juices*

Order a dozen or so today! 2 sizes: retailing 1/8 inc. tax and 2/11 double quantity. Can be mixed with your order for Zac Baby Products and other "Hough Hoseason" packed Pharmaceutical Preparations, to qualify for best available quantity terms.

*Made by the makers of
ZAC Baby Products*

HOUGH HOSEASON & CO. LTD.
Levenshulme, Manchester 19





Place your order
NOW and make sure of
YOUR counter attraction.

Dye Selling made Easy

AND STOCK RECORDING SIMPLIFIED
WITH THE UNIQUE AURORAL "SERVE YOURSELF"
COUNTER DISPLAY CABINET

Your customers can now see at a glance the exact shade
of Auroral Dye required and obtain it from the well
indexed divisions of the cabinet without troubling you.

The Cabinet supplied FREE with 1 gross orders in any
assortment you desire.

Order Forms with full list of colours supplied on request.

Price 4/- per dozen, less 5% for cash in 7 days.

Retail—(P.A.T.A.) 6d. per packet.

AURORAL COLD WATER DYES

WHITAKER & CO. (Kendal) LTD.

Dye & Chemical Manufacturers, Kendal

THE "MATER"

CLINICAL REGD.
The position of the Mercury column is at once
perfectly plain. Red markings above 99.4

ALL TYPES OF CLINICAL AND OTHER THERMOMETERS

PERKEN, SON & CO. LTD.
(ESTABLISHED 1852)

8 HATTON GARDEN
LONDON, E.C.1

Telephone: 0724 Holborn

Telegrams:

"Optimus, Smith, London"

Wholesale Agents for Clinical
Thermometers:

FASSETT & JOHNSON, LTD.
86 Clerkenwell Rd., London, E.C.



VITAL STATISTICS

Each day an adult needs 600 I.U.s of
Vitamin B₁. It is an appalling fact that
many diets, with their preponderance of
white bread and over-milled cereals, yield
only half this amount. Yestamin national
advertising is directed to showing how this
situation may be simply remedied with daily
yeast — a statement endorsed by highest
medical authorities. Ever-increasing sales
of Yestamin are a direct contribution to
the nation's health!

In Bottles	to retail at	Trade Prices
100 TABLETS	1/6	12/3 PER DOZ.
300 TABLETS	4/-	33/- PER DOZ.

Less 5% Cash in 14 days

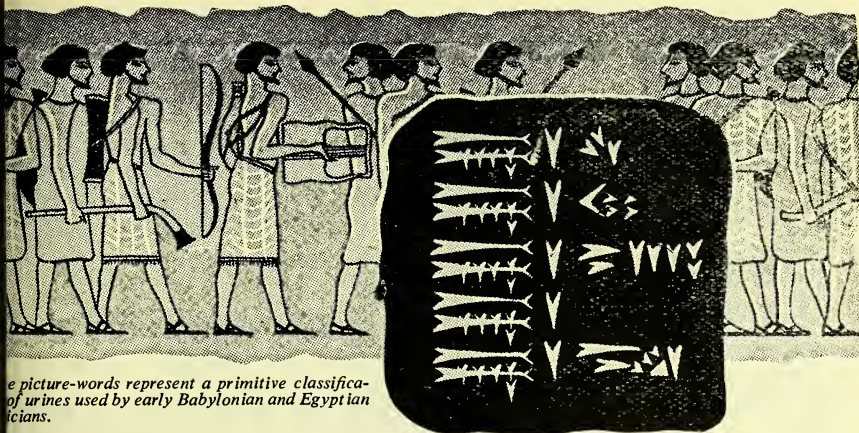
Vitamin B₁ 2.10 mgms. per oz.

Riboflavin (B₂) 1.45 mgms. per oz.

Niacin 9.50 mgms. per oz.

Yestamin DAILY YEAST

THE ENGLISH GRAINS CO. LTD. BURTON-ON-TRENT

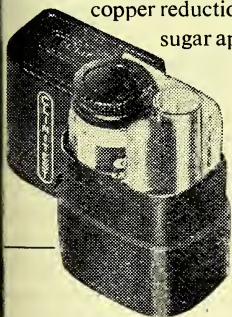


The picture-words represent a primitive classification of urines used by early Babylonian and Egyptian physicians.

Centuries to perfect—seconds to perform

When Sumerian and Babylonian physicians, circa 4000 B.C., noted the varying colours and constitutions of the 'water of the gallus,' they were probably not the first uroscopists in history. They were assuredly not the last, for forty-odd centuries were to elapse before Fehling's first paper on the copper reduction test for urine-sugar appeared in 1848.

But centuries to perfect diagnostic procedures are condensed into seconds to perform the reliable 'Clinitest' (brand) tablet method for urine sugar levels. From start to finish, the test takes less than a minute. It's simplicity itself . . . readily learned by every diabetic patient. External heating is eliminated. Routine test interpretation is made easy.



APPROVED BY THE
MEDICAL ADVISORY
COMMITTEE OF THE
DIABETIC ASSOCIATION

CLINITEST

(TRADE MARK)

REAGENT TABLETS FOR URINE-SUGAR ANALYSIS



Leaflets for distribution to purchasers of diabetic products will be sent free with all orders. For complete information write to the Sole Distributors:

DON S. MOMAND LTD

57 ALBANY STREET, LONDON, N.W.1

IS A PRODUCT OF THE AMES COMPANY INC., OF ELKHART, IND. U.S.A.

Face Facts!

Are dry-shavers as popular as they should be?

EARLY Victorians didn't take easily to the first train. Many people still fight shy of travelling by air. Old habits die hard, and there are thousands of men who still cast a sceptical eye on dry-shaving. No, dry shaving is not yet popular. Nor was the ordinary safety-razor once!

The pointer is, however, moving in the right direction. Sales of the all-British BUK Dry-shaver have already grown to an encouraging stature. The market is still young—and big. Now is your opportunity. Those present-day sceptics can become your customers if you tell them the facts about BUK, the dry-shaver that really gives clean, smooth shaves. Remember too the woman market: BUK is so gentle in operation that women are finding it excellent—and most convenient—for removing superfluous hair.

The BUK is trouble-free. No parts to lose, no bearings to oil, nothing to go wrong. Its patented five-in-one head gives 300 effective shaving edges. Quiet in operation. No motor. No radio or television interference. For greater convenience, an on-off switch is actually on the razor. A voltage control ensures correct maximum speed. These are exclusive BUK features. Another good selling feature is the price—under £5.

Ask your wholesaler for new display cards and literature.



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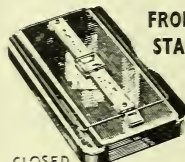
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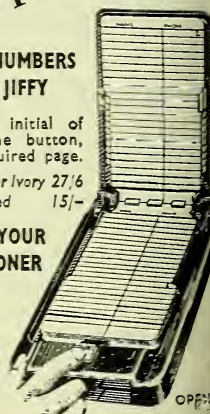
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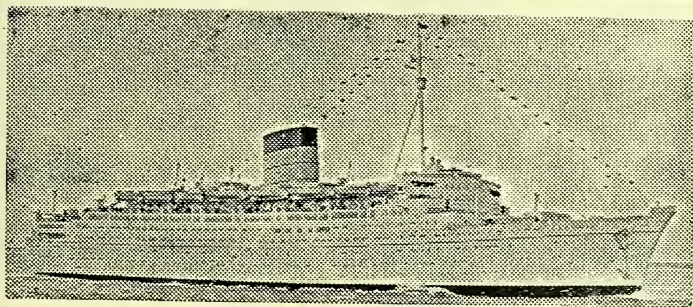


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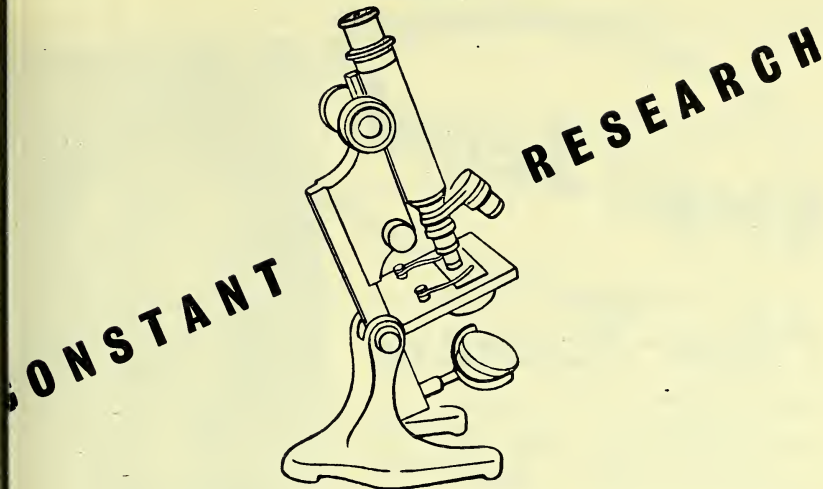
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